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American Engineer

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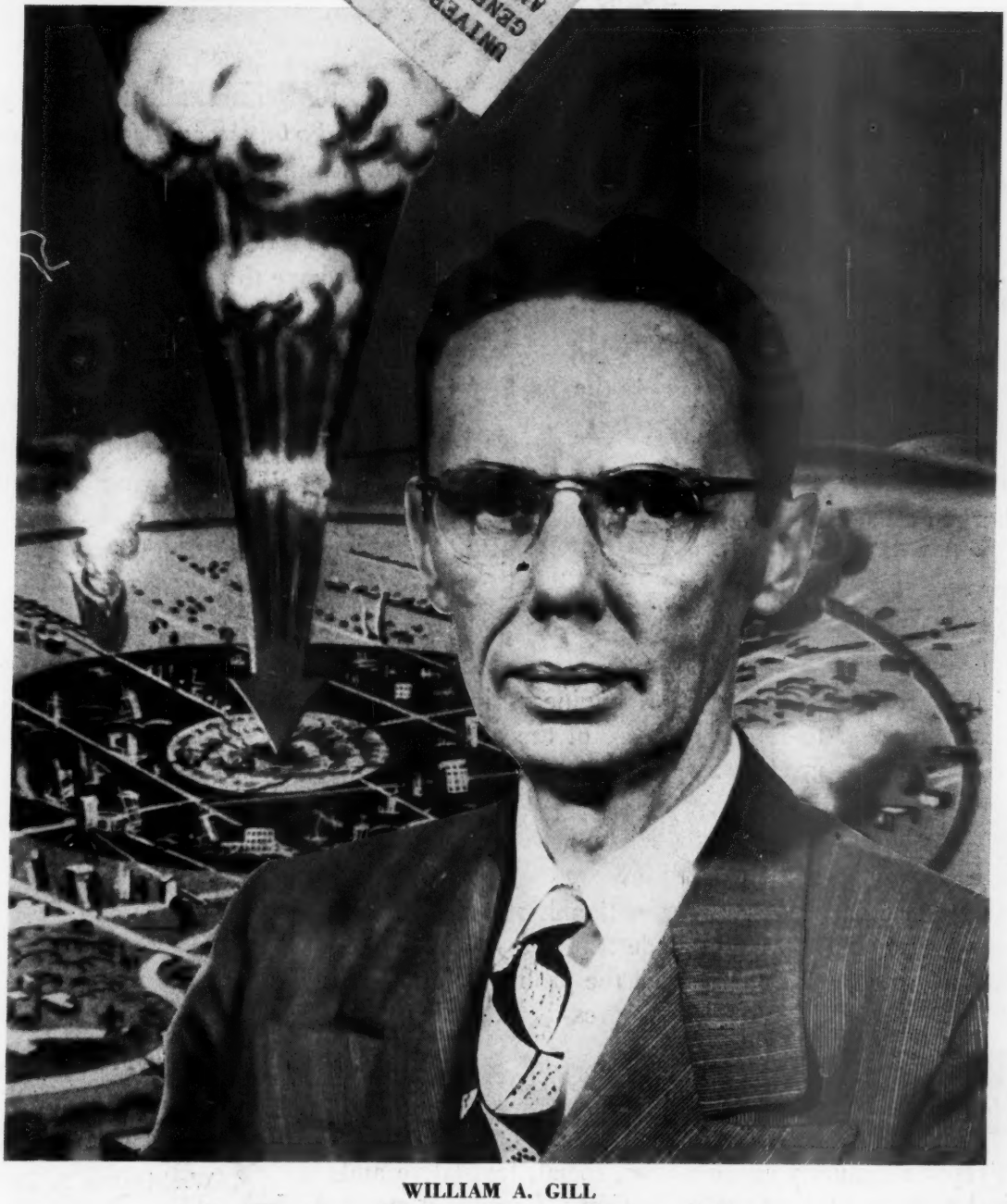
IN THIS ISSUE . . .

The Time Is Now:

YOUR JOB IN CIVILIAN DEFENSE



WILLIAM A. GILL
The Community Must Assume The Responsibility

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FOUNDED 1934

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American Engineer

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NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS FOUNDED 1934

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C. GEORGE KRUEGER, Chairman

•

"It would be regrettable if any young men should leave the professional schools of engineering without having given careful consideration to the political, economic, social, and philosophical questions about which the world of today is in something approaching mortal conflict. Otherwise they would be thrust into a world of strife in the garb of illiterates in all that pertains to a desperate human struggle the end of which is not in sight."

C. R. YOUNG,
Dean Emeritus,
Faculty of Engineering,
University of Toronto

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Inertia in the Nation's Capital . . .

• AN EDITORIAL •

THE WASHINGTON POST
Sunday, November 27, 1949

Building Reforms Just Recommendations Two Years After Empire Collapse

By Sam Zagoria
Post Reporter

Two years ago next month a thunderous roar shook downtown Washington. The roof and several floors of the seven-story Empire Building collapsed with 150 persons inside.

Four died and 12 were injured.

The December 16 tragedy set off a three-months' investigation by building experts and city officials. Three principal recommendations came forth.

Today the recommendations are still merely recommendations.

The five-man board recommended:

1. Structural engineers should be registered by a board of registration.

2. General contractors should be licensed and required to post bond to insure performance of work in compliance with the building code.

3. The District director of inspections should be given power to require that buildings involving

COURTESY WASHINGTON POST

LOCAL COMMUNITIES have always had, and will probably always have, their local disasters. A fire ravages a school building, a gasoline tank explodes, a building collapses. And with each of these events life is often lost and citizens are injured. We are always sorry; sometimes, if it is bad enough, we are shocked, and then we appoint a committee to look into the causes. Too often, that is the end of the story and in our hurried lives we forget about it —until the next time.

Such an event occurred in the Nation's Capital a little over two years ago. A seven-story building used for housing accommodations suddenly collapsed leaving an empty shell of brick and mortar. At the time of the tragedy 150 persons were inside. Four of them died and twelve were injured. The property damage was large, but unimportant compared to the human loss. We were shocked. The City Fathers appointed a committee. Just short of a year ago the committee reported its findings and recommendations. That is the familiar pattern and there the story ends. . . . UNLESS . . .

While it may be important to assess the blame and fix the responsibility in such cases a much more important feature is to prevent a recurrence of similar mishaps. The local committee in the District of Columbia had some ideas about that. One of their ideas was that structural engineers should be registered by a board of registration. Another idea was that buildings involving public safety should be designed only by registered architects and structural engineers. These are not new ideas outside the District of Columbia, but they are novel here. For the District of Columbia is the only area of the United States without a registration law for engineers.

One must understand that the District is governed by the Congress of the United States and our harried lawmakers sometimes are wont to let District affairs go by the board in the rush of national and international problems. For years leading engineers of the District have sponsored a bill in Congress to provide an engineering registration law. It is a good bill, incorporating the best features of the state laws and patterned after the Model Law. It has been hailed by registration experts as one of the most progressive proposals in this field. The present bill, H.R. 1188, is sponsored by a leading engineer in Congress, Representative Carl Hinshaw of California. But for an equal number of years the bill has been assigned a pigeon hole in the District of Columbia Committee.

Surely there has been enough time for the Committees to consider the matter. Surely there is nothing to be gained from waiting any longer. Surely, if we do wait long enough there will be another collapse, another investigation, and another set of recommendations. The investigating committee, in closing its report, said, "The above recommendations will serve to minimize the possibility of failures of this type in the future . . ." What other justification is needed? THE TIME FOR ACTION IS NOW.

Accent on Activity

INVESTIGATIONS REVEAL . . . There's an active campaign to bring professional engineers employed by railroads into the labor union movement. Taft-Hartley is not in point. The Railway Labor Act (forerunner of the Wagner Act) is the law involved. The Railway Labor Act doesn't mention professional engineers. Engineer employees of railroads are subject to the Act, except: Engineers of maintenance of way, chief engineers, division engineers. They are "officials of carriers" and exempt. . . . If covered by the Railway Labor Act, Taft-Hartley doesn't apply.

IT'S INCOME TAX TIME . . . Don't forget you are entitled to deduct professional society dues. Some engineers have tried to deduct in the wrong place. If you are self-employed you can deduct from gross income as a business expense and still take standard personal deductions. If employed you can only deduct dues by itemized personal deductions or through standard deduction.

BUREAU OF RECLAMATION . . . says its firm policy is to let engineering contracts by negotiation—no competitive bids from professional services. Complaints to NSPE indicate otherwise. Further confabs will be held with Reclamation if complaints are backed up with facts proving violation of stated policy.

GOV'T'S ADVANCE PLANNING PROGRAM is in full swing. Many inquiries to NSPE on procedures. Points to remember: only municipal governing bodies can file applications for funds . . . not consulting engineers who will do work for the municipality. Get municipal officials to do it. Applications and detailed information should come through Division Offices, Bureau of Community Facilities—not Washington. Ask NSPE Hqs. for Division Office locations.

NSPE MEMBERSHIP MAILERS out to 70,000 . . . State Societies mailing them to all eligible engineers. Washington office mailing for some societies. Results: GOOD. Returns averaging over ten percent. Direct mail advertising men say this is phenomenal. Next and important step: Follow-up at local level and sign up.

BALLOTS for 1950 election nearly in. One late-comer sent in 1949 counter! Average return: About forty percent. Next: Counting job for Tellers Committee.

LEGISLATIVE BULLETIN . . . copy went to every member of NSPE with coupon to order this free service. Returns were heavy, now slowing down. Total mailing list will be over 4,000.

PREPRINT OF EDITORIAL from American Engineer (see page 4) sent to members of District of Columbia Congressional Committee. Editorial (and letter) calls attention to lack of and need for a registration law in District.

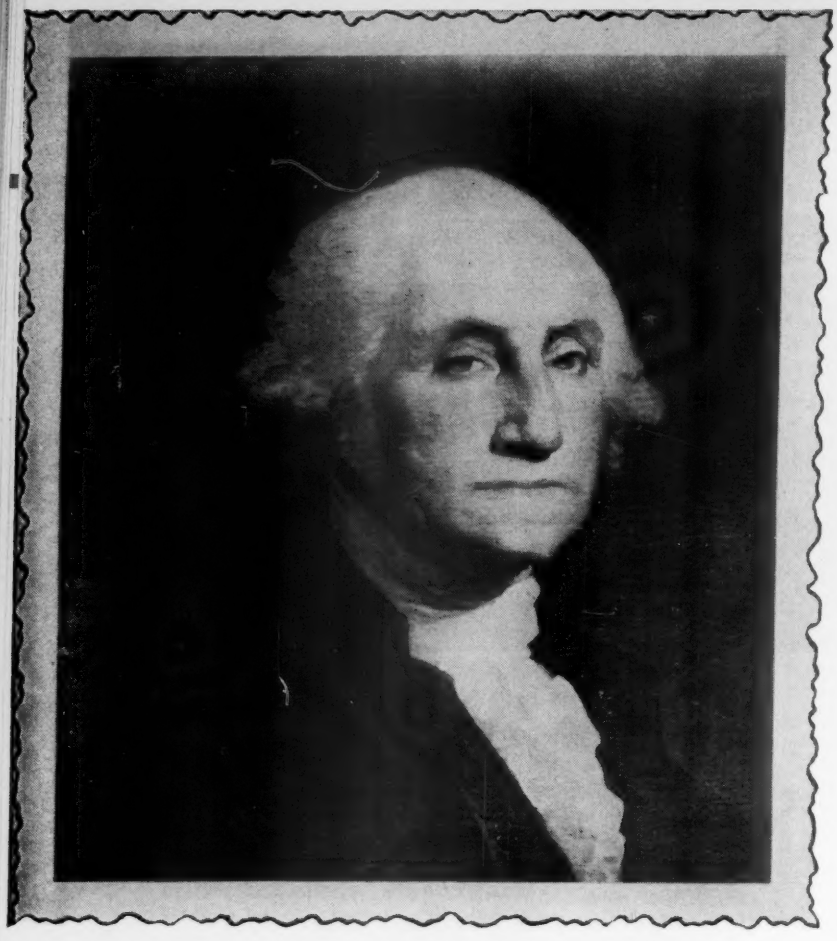
WORD HAS GONE out to State Societies suggesting establishment of Committees on Military Affairs . . . Possible activities: Reserve programs, civilian defense, selective service, emergency engineering needs in community.

SUB-COMMITTEE ON GOVERNMENT SALARIES of the Salary and Fee Schedule Committee, NSPE, has completed excellent report. Similar reports from other sub-committees expected shortly.

DATES TO REMEMBER: State Secretaries and Presidents Conference, Maxwell House, Nashville, Tenn., March 9, 10, 11. Secretaries only, March 9. Joint Meeting, March 10. Presidents only, March 11. Executive Committee, March 8, same place.

INTERSOCIETY PLANNING COMMITTEE ON UNITY has had many meetings, reports Past President Van Praag, representing NSPE. Three basic proposals offered for consideration—one built around NSPE.

FIRE AND BUILDING CODES . . . State Societies concerned with this have been cautioned to watch that they conform to registration laws pertaining to plans being drawn by registered engineers and/or architects.



Soldier and Statesman, Yes—But Engineer, Too

Washington Worked Here

CONTRARY TO what every sightseer believes after he has looked upon the stately mansion at Mount Vernon and the seemingly countless acres surrounding it, George Washington never had much money. He spent so much time working for Uncle Sam *gratis*, that it is safe to assume he sacrificed potential wealth to serve his country. In view of this, it should please the professional engineer to learn that much of the riches our First President *did* accumulate came as a result of his early work as an engineer.

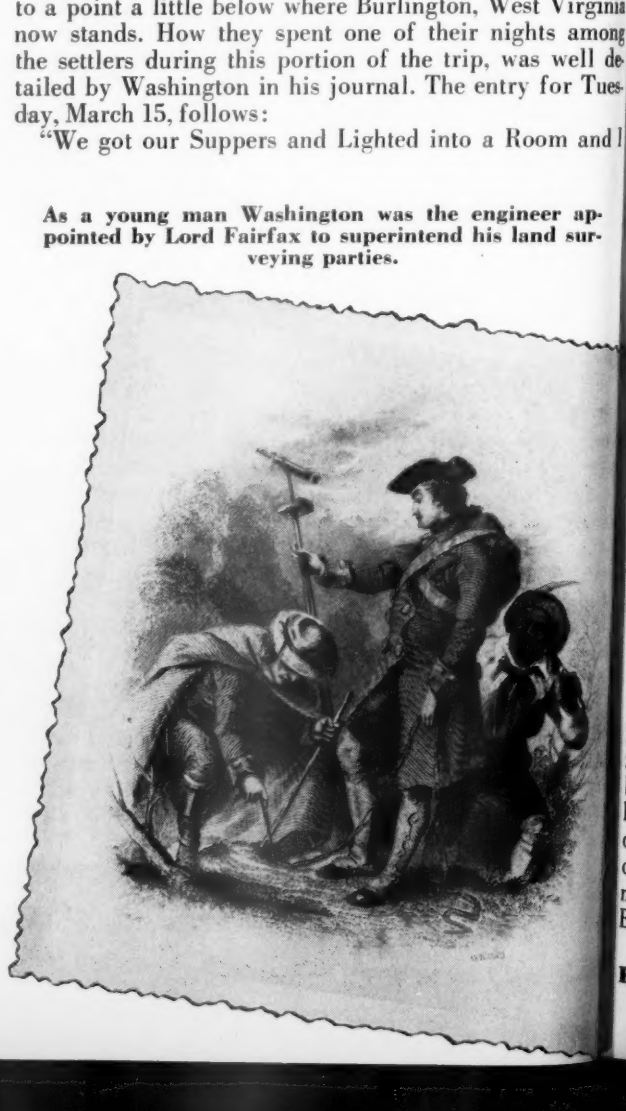
By the time he was 16, the long-nosed, raw-boned Washington was out on the frontier helping Lord Thomas Fairfax improve the princely domain that belonged to his lordship, a job that brought him better than a doubloon (16 dollars) a day. He kept his money, and by 1748 he was able to buy 550 acres of wild land in Frederick County—a place he later called "my Bullskin Plantation." Two years later he was ready to buy more of the farm land he loved, acquiring about 476 acres from one James McCracken, for which he paid 112 pounds. In 1752 he added 552 acres along the south fork of Bullskin Creek. and in 1757 he bought 500 additional acres on Dogue Run. near where Mount Vernon now stands. So, in less than ten years, the enterprising young engineer-farmer was ready to live the life of a plantation-owning aristocrat—but that destiny ruled otherwise is a story often told.

FACTS concerning Washington's life are abundant or scarce—depending upon which period one is interested in. The records offer little regarding his early years as an engineer, but the government does have under its ownership a journal kept during a field trip by young Washington that covers more than a month—Friday, March 11, to Wednesday, April 13, 1748. It was on March 11 that Washington, a member of the Fairfax family, George William Fairfax, and an experienced surveyor, James Genn, started on their first expedition.

The party, heavily laden with gear, rode up the Potomac, across the Shenandoah Valley, and then along the river to the mouth of Patterson's Creek. At this point, the record shows, they swam their horses across the stream, following in a canoe. They ascended this creek about 15 miles to a point a little below where Burlington, West Virginia now stands. How they spent one of their nights among the settlers during this portion of the trip, was well detailed by Washington in his journal. The entry for Tuesday, March 15, follows:

"We got our Suppers and Lighted into a Room and l

As a young man Washington was the engineer appointed by Lord Fairfax to superintend his land surveying parties.



These old prints show Washington and Lafayette at Mt. Vernon (left), and the General's victory march into New York City.

not being so good a Woodsmen as ye rest of my Company striped myself very orderly and went into ye Bed as they call it, when to my Surprize I found it to be nothing but a Little Straw—Matted together without Sheets or anything else but only one thread Bear blanket with double its weight of Vermin such as Lice, Fleas, &c. I was glad to get up (as soon as ye Light was carried from us) I put on my clothes and lay as my companions. Had we not been very tired I am sure we should not have slep'd much that night."

HERE is George's record for the next day.

"We set out early and finish'd about one O'Clock and then Travell'd up to Frederick Town where our Baggage came to us we cleaned ourselves (to get Rid of y. Game we had catched y. Night before) and took a review of y. Town and thence returned to our Lodgings."

And then on March 23, Wednesday.

"Rained till about two O'Clock and clear'd when we were agreebly surpris'd at y. sight of thirty odd Indians coming from War with only one Scalp. We had some Liquor with us of which we gave them part, it elavating there Spirits and put them in y. Humour of Dauncing."

At this point it might be interesting to note that while the young Washington was setting his compass or dragging his chain along Patterson's Creek, he was surveying land that later was to be an important place in the pedigree of another young surveyor, A. Lincoln. Toward the end of the Revolutionary War, after the surrender of Cornwallis, when the Fairfax lands were coming onto the market, Joseph Hanks, maternal ancestor of Abe, came with his family along the Potomac, bought land and established a home. Nancy Hanks, mother of Abe, was born in 1783 or 1784 on a farm in the Potomac Creek area, first surveyed by George in 1748.

HISTORIANS say that the trip chronicled above did much for Washington's character. First, it thoroughly inured him to hardship. He loved comfort and even luxury, but he was used to enduring exposure, fatigue, hunger and cold once he had completed the expedition. As a matter of fact, he later enjoyed getting away from Mount Vernon for brief periods to live the life of a backwoodsman. But more important, his engineering jaunts gave him a vision of the West that later caused him to plan wisely for the future of his country. He learned much about the lives of the early settlers, coming to realize their hopes and fears. By often "feeling the pulse" of the hardy colonists, he was able in later years to depend upon these people he knew so intimately.

In his capacity as a military engineer Washington built roads through forests, constructed bridges, built forts and fortifications. With a small force of troops, he opened the first road over the mountains westward from the Potomac at Cumberland, to the waters of the Monongahela and Ohio; a road which was to play such an important part in developing that western country.

Later Washington officially established the Army's Corps of Engineers. The "first record" of the Corps is found in an entry in the Journal of the Continental Congress under the date of June 16, 1775, authorizing a three-officer Engineer Headquarters. This was on the day before the Battle of Bunker Hill, during which one type of engineering works, field fortifications, played such an important part.

EVEN as president, Washington did not get too far away from engineering. He put his old soldiering friend, French General L'Enfant in charge of planning the city of Washington, but kept in close touch with developments himself. It was during this period, too, that he issued the first building regulations for the nation's capital. "Terms and Conditions declared by the President of the United States, this Seventeenth day of October, 1791, for regulating the Materials and Manner of the Buildings and improvements on the lots in the City of Washington," were the beginning words.

So a great life filled with activity embraced the interests of engineering, soldiering, and statesmanship. That he preferred his younger days when he farmed and engineered in the Virginia hills, is hinted at in some of his documents. Consider this writing of 1790: "I can truly say I had rather be at Mount Vernon with a friend or two about me, than to be attended at the seat of government by the officers of state and the representatives of every power of Europe."

This month, then, we salute a great engineer by celebrating Engineers' Week during the week of Washington's birthday. Yes, soldier and statesman, but engineer, too.

Concerning— the point four program

Where Do We Stand Today On The President's 'Bold New Program' for World's Underdeveloped Areas?

THERE IS PROBABLY no other group of men in the country who have had more direct experience over the years with the economic improvement of the world's underdeveloped areas than the engineering profession. To these people, working for private concerns or the government, the principle of President Truman's Point 4 program is not new.

Hundreds of engineers, employed by the Arabian American Oil Company, have carried out a miniature Point 4 program in Saudi Arabia for more than two years. The program, largely financed by oil royalties paid by the United States firm, is the dream of King Ibn Saud and calls for undertaking large-scale railway construction, expansion of port facilities, the building of an extensive network of good roads, the electrification of ancient places, the improvement of water supply, and the establishment of schools, hospitals, and agricultural experiment stations.

Another successful, though less ambitious program, has been conducted by the Institute of Inter-American Affairs in the Amazon Valley of Brazil, when the cooperative health and sanitation program was initiated there, only two cities in an area two-thirds the size of the United States had an adequate and safe public water supply system. The incidence of typhoid fever and other water-borne diseases was extremely high, as was the infant mortality rate and intestinal parasite infection rate. One of the most important parts of the engineering and sanitation phase of the work has been construction of safe public water supplies in the smaller communities, ranging in size from 500 to 10,000 inhabitants. The results in Amores, a town of 5,000, are typical of what has been accomplished. There, from 20 to 30 cases of typhoid fever occurred every year, many of which resulted in death. But not a single case occurred in the year following the establishment of a small and economical public water system under the Institute's program.

Mexico's Program

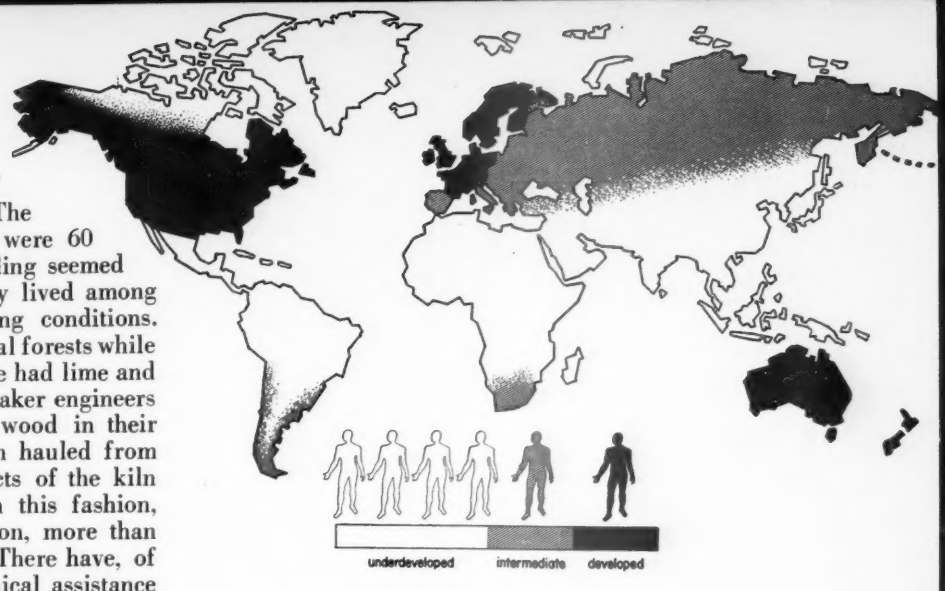
IN Mexico, President Miguel Aleman on October 13, 1948, participated in the simultaneous inauguration of new water supply and storage systems in nine towns in Mexico. These systems were constructed under the auspices of the health and sanitation program of the Institute of Inter-American Affairs. During the ceremony the Minister of Hydroelectric Resources in a nationwide radio broadcast stated, "Water supplies and storage services in our cities are very important when we consider that 22% of the general mortality rate is caused by waterborn diseases. In 1940 less than 1% of the cities and towns in Mexico had water supply systems and only 5 of these cities and towns had really potable water. The systems erected at this time will supply safe water to 110,000 people. "Under the health and sanitation program of the IIAA a total of 30 water supply and storage projects have been completed to date in Mexico, and 32 others are now under construction. The effects of these projects on increasing the economic potential of the people of this large area are enormous.

Irrigation and reclamation projects result in increased food production, and the lack of sufficient food is usually at the root of the troubles of backward nations. Here again the solution to the problem is one long solved through engineering. Engineers for one of the Near East Foundation's projects in Iran, discovered that the economic level to which the life and even the standards of education in rural Iran could rise depended upon the amount of available water. Careful study of the topography and the soil structure convinced them that an ample supply of water was to be found beneath the surface of this area. Wells were dug and the water now flows over the land through an irrigation system. So valuable was this commodity that the villages repaid the Foundation for the cost of the wells, and with certain additional funds plan further work.

ENGINEERS put irrigation dams to work in Ceylon. The Bureau of Reclamation of the U. S. Department of the Interior, aided that government by arranging for American engineers to help the local construction engineer on a large dam which was necessary for the success of a $20 million project to irrigate 120,000 acres. Without the technical assistance necessary to make this project a reality, the whole scheme of development of Ceylon would be jeopardized. With this advice it was possible to go ahead with the successful completion of the project. In two to four years hence, when there is brought into bearing the great acreage which this dam will make it possible to irrigate, Ceylon will be able to provide food for ½ million additional persons and will be 10% further along the road to agricultural self-sufficiency.

Reconstruction

SINCE the war, reconstruction has become an extensive engineering feat throughout the world. The work of the



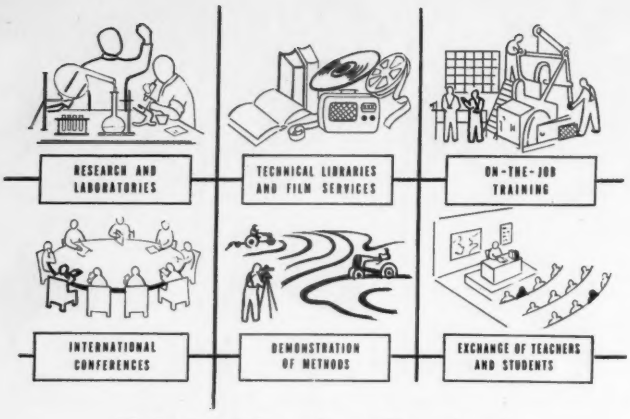
American Friends Committee, a Quaker group, assisting the Italians who lived along the old Gustav and Gothic battle lines, is representative of work done by several organizations. The villages and towns in this area of Italy were 60 95% destroyed. The problem of rebuilding seemed insurmountable to the townspeople. They lived among the debris and in camps under appalling conditions. Many of these towns, however, had communal forests while the larger centers of trade and manufacture had lime and brick kilns lying idle for lack of fuel. Quaker engineers organized the rural villagers to cut the wood in their forests to sell for fuel. The fuel was then hauled from the village forest to the kiln, and products of the kiln were brought back on the return trip. In this fashion, and with engineering advice on construction, more than 300 homes were built in the first year! There have, of course, been numberless instances of technical assistance furnished by industrial organizations of the more advanced countries; projects that make the greatest direct contribution to economic advance in specific industries. The program of the Bureau of Standards of the U. S. Department of Commerce and the results which it has achieved are typical of this kind of activity. Last year some 665 individuals from other countries came to the U. S. to observe and learn the specialized techniques of the Bureau. These observers were scientific experts, industrial engineers, chiefs of research bureaus, government officials, and private persons. Their fields of interests covered such matters as hydroelectric heat and power, rubber, electronics, textiles, aeronautical instruments, building materials, metallurgy, industrial research, physics and radio.

In the field of transportation the work done by the Civil Aeronautics Administration and their engineers in cooperation with Peru, is illustrative of a number of projects in this field. Air transportation over the mountainous and jungle areas of the interior of Peru is of great importance in the economic development of this country, as it is in many underdeveloped countries where road and trailroad transportation facilities are not well advanced. The Civil Aviation Mission to Peru assisted in the acquisition and operations of an aeronautical communication system, the installation of new stations and new equipment, the installation of equipment essential for safety, and the improvement of maintenance and operation techniques. Engineers studied a total of 50 air fields, and assisted in improving, relocating, constructing and reconstructing 19 airports.

So from the time Americans first sailed the seas or crossed borders to lend a helping hand, down to King Ibn Saud's present day plan, the professional engineer has been "Point Fouring." Not feeling strangers to the field, then, NSPE has endorsed the official Point Four program in *principle*. Procedures for implementing Point Four are now the subject of legislation presently before Congress. On this proposed legislation, NSPE has *not* taken a stand other than to urge *sound engineering administration for the program.*

Of course, it is the duty of any engineer analyzing Point Four as it stands today, to recognize the fact that the problems facing *any* plan are mountain-high. As Herbert Bratter, Washington *Star* feature writer pointed out recently in an article, the very countries most anxious to receive American investments are often the most particular about the terms on which they will accept our capital. A Mexican spokesman at the UN says bluntly his country will shut the door to the "shylock type" of investor, but will welcome the kind of investor Franklin D. Roosevelt would

Introducing simple mechanical tools as a substitute for laborious hand operations, jumps production in backward nations.



Methods of Spreading "Know-how."

have been. In Brazil, Afghanistan, Burma, Britain—everywhere, indeed, there is resentment over the "high and mighty attitude of the United States."

Just as in Europe many people regard the ERP as a selfish American program devised to get rid of American surplus and avoid economic depression here, so American investment in underdeveloped countries is sometimes viewed as a cunning plan to exploit and enslave less fortunate peoples, and give the United States access to the raw materials on which it is becoming, due partly to the large foreign-aid programs, increasingly dependent.

Industrialist Skeptical

AMONG the many obstacles to raising the world's standard of living to the American level is the fact that developing a country is not just a matter of importing a steel mill. A competent American industrialist estimates that, in the case of Mexico, to bring about by 1980 the per capita industrial development enjoyed by the United States in 1930 would require, on the basis of 1929 commodity prices, $8,000,000,000.

The International General Electric Co., a concern much interested in foreign industrialization, finds that to make a given product in Latin America requires about half again as much capital investment as in the United States. Unit labor costs in Latin America are high because the small markets mean greater factory diversification, rather than specialization as we have here. Added to this are the inferior industrial skills, delays arising from the uneven flow of raw materials, packaging and the like. Also, local customs often impede production. A steel mill cannot operate at maximum efficiency if the whole labor force takes off Holy Week.

Nor can a staff be trained in modern industrial methods overnight, say some experts; not even by bringing a few employes to the United States for training. Industrial techniques and managerial arts take years and even generations to develop. American industry is a continuous process, permeating the whole economy and society. It depends, moreover, on an adequate supply of raw materials and an ample market for its products.

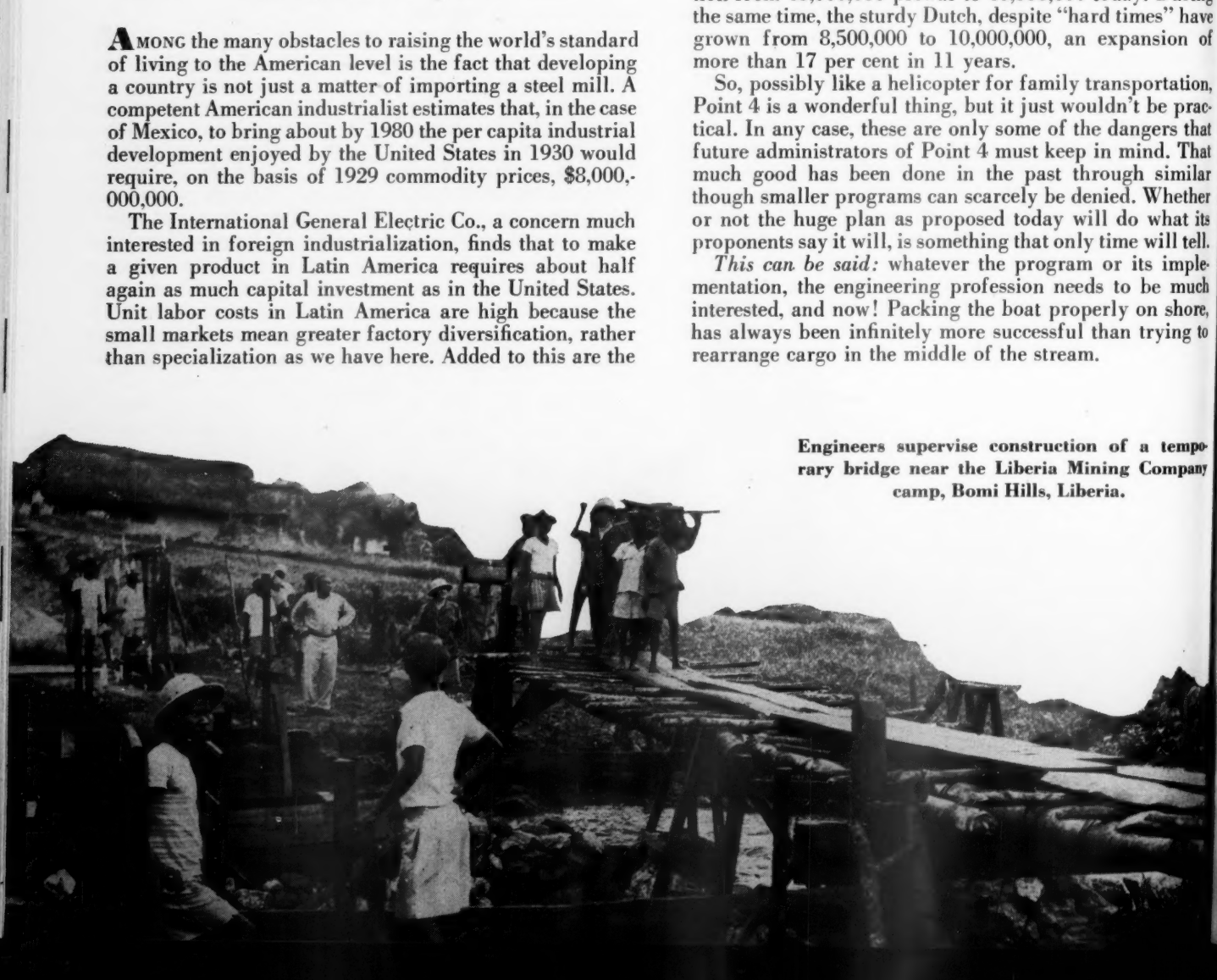
Money Not Everything

FOREIGN investment is not always an undiluted blessing to a country. It sometimes promotes inflation, encourages extravagance and, by drawing workers away from their habitual tasks and abodes, can have harmful economic and social consequences.

In almost every underdeveloped country from the English Channel to the Pacific Ocean religious and social customs, as well as military policies, actually encourage large families. China's ancestor worship, for instance, puts a premium on descendants. Asia's teeming millions breed the lowest possible standard of living. Even in industrial Europe, raising the standard of living through American aid tends to be a tread-mill proposition. Not only in the Catholic Mediterranean lands, but elsewhere as well, the numbers seeking uplifting grow and grow. In Italy some 3,000,000 little Italians have swollen the hungry population from 43,000,000 prewar to 46,000,000 today. During the same time, the sturdy Dutch, despite "hard times" have grown from 8,500,000 to 10,000,000, an expansion of more than 17 per cent in 11 years.

So, possibly like a helicopter for family transportation, Point 4 is a wonderful thing, but it just wouldn't be practical. In any case, these are only some of the dangers that future administrators of Point 4 must keep in mind. That much good has been done in the past through similar though smaller programs can scarcely be denied. Whether or not the huge plan as proposed today will do what its proponents say it will, is something that only time will tell.

This can be said: whatever the program or its implementation, the engineering profession needs to be much interested, and now! Packing the boat properly on shore, has always been infinitely more successful than trying to rearrange cargo in the middle of the stream.



Engineers supervise construction of a temporary bridge near the Liberia Mining Company camp, Bomi Hills, Liberia.

Massachusetts Engineers Vote To Sustain Permissive Registration Law

By

Carroll A. Farwell,

President, Engineering Societies of New England, Inc.

MASSACHUSETTS WAS among the last group of states to adopt an engineering registration law. Ten years ago a Committee on Public Affairs of the Engineering Societies of New England, comprising representatives of constituent societies throughout Massachusetts, carried on a careful study of the engineering registration movement and submitted a report that received thorough discussion on a state wide basis.

As a result of this survey, the engineering societies of the State united to obtain enactment of a permissive law based upon the Model Law endorsed by many national professional organizations and carrying the recommended standard qualifications for licensure. It was realized at the time the law was proposed that most other states had adopted the mandatory form, but in view of the fact that no evidence was found indicating that all engineers should be compelled to register in order to protect the public and since many engineers objected to the compulsory features, the establishment of engineering registration on a voluntary basis in Massachusetts seemed appropriate.

Little Comment

For the greater part of the first decade after its enactment, the law caused relatively little comment. Its administration was in the hands of a Board of five members, all known to be engineers of high competence with notable records of service to the profession and to the community. There was general agreement that the law was serving the purpose well and that it was being ably administered.

RECENTLY, however, some Massachusetts engineers have advocated changing the law to make it mandatory, arguing:

1. that it would enhance the professional status of the engineer to require registration as a prerequisite for practice.
2. that it would serve to define the profession of engineering and to eliminate confusion in this respect.
3. that it would provide a means with legal force for the elevation of the qualifications of an engineer.
4. that it would eventually eliminate unqualified pretenders in the engineering field.
5. that it would give greater protection of life, health, and property through improving the qualifications of engineers and placing upon them a legal responsibility.
6. that public protection through the statutory technical code is ineffective and that the most effective protection can be obtained through carefully screened practitioners.
7. that countrywide uniformity of registration laws of professional practice would be promoted since 46 states have some form of mandatory law.
8. that there need be no fear of diluting the profession with unqualified practitioners by virtue of a Grandfather Clause since a substantial proportion of practicing engineers in Massachusetts is now registered and since a clause affecting current practitioners could be written into a mandatory law in such manner as not to undo the work of screening so far accomplished by the Registration Board.

Widespread Discussion

During 1948-49 there was widespread discussion among engineering societies throughout Massachusetts regarding the relative advantages of the permissive type of registration law that has been in effect in the Commonwealth since 1941 and the mandatory form which is on the statute books of most other states. A bill proposing to amend the present Massachusetts statute making it mandatory and introducing other minor modifications of the law was filed in the legislature last year and discussion was focussed upon its provisions. Because of the differences of opinion that were voiced among engineers throughout the Commonwealth, the bill was withdrawn by its sponsors in the spring of 1949 with the understanding that a state-wide referendum would be held in the fall to find out what view was held by the majority of engineers.

THE referendum was sponsored jointly by E.S.N.E. and the Massachusetts Society of Professional Engineers and was administered cooperatively by the Committee on Legislative Affairs of M.S.P.E. and the Committee on Public Affairs of E.S.N.E. A ballot was prepared summarizing the arguments for and against mandatory engineering registration and providing an opportunity for the voter to indicate whether he favored or opposed the mandatory type of law for Massachusetts.

Ballots To 10,200

Ballots were mailed to an unduplicated mailing list of 10,200 names comprising all registered professional engi-

neers in the Commonwealth, all members of the Massachusetts Society of Professional Engineers, all Massachusetts members of the Engineering Societies of New England, all members of the Worcester Engineering Society, the Engineering Society of Western Massachusetts, and the Pittsfield Section of A.I.E.E.

By the deadline date of noon on November 30, 1949, 4,261 ballots (about 42%) had been returned. Of these, 1,829 favored the mandatory law, 2,355 were opposed to such a law, and 77 ballots were invalid. Thus a majority of 526 engineers who participated in the referendum prefer the permissive law now on the statute books.

AN analysis of the vote of various engineering groups follows. Inasmuch as many of those who voted were members of several groups, the vote by societies does not add up to the total of 4,184 valid individual ballots that were cast because many votes were counted more than once in the breakdown by branches of engineering.

Question Settled By Vote

THE VOTE BY CONSTITUENT GROUPS

Group	*For Mandatory Form*	*Against Mandatory Form*
Registered Professional Engrs. (Mass.)	1,120	834
Mass. Society of Professional Engrs.	229	76
Eng'g. Society of Western Mass.	35	85
Worcester Engineering Society	37	91
Am. Institute of Electrical Engrs. (Mass.)	353	498
Am. Society of Mechanical Engrs. (Mass.)	237	364
Am. Society of Civil Engrs.	166	157
Boston Society of Civil Engrs.	172	183
American Institute of Chemical Engrs.	26	91
Am. Institute of Mining & Metallurgical Engrs.	7	48
Am. Society of Tool Engrs. (Boston and Worcester)	58	183
Am. Society of Heating & Ventilating Engrs.	40	44
Am. Society of Refrigerating Engrs.	27	54
Institute of Radio Engrs.	66	310
American Welding Society	25	23
Illuminating Engineering Society	36	68
Mass. State Engineers Assn.	59	46
Plant Engineers Club	3	20
Boston Society for Quality Control	15	37
Municipal Technical Engrs. Assn.	13	7
Instrument Society of America	20	25
Am. Society of Lubrication Engrs.	2	12
Am. Society for Non-Destructive Testing	0	8
American Society of Safety Engrs.	19	32

Arguments Listed

ARGUMENTS presented by those who oppose making the law mandatory in which the majority of engineers who participated in the referendum concurred, were as follows:

1. that compulsory registration is an unnecessary and unwarranted infringement upon freedom of engineering practice.
2. that the public health and safety is not in jeopardy from engineering practice at the present time, that there is no evidence of impending danger, and that present statutory codes give adequate protection.
3. that it is not possible to legislate a profession into existence and that improvement of professional status can and should be achieved by engineers themselves—not by legal pressure from an agency of government.
4. that regardless of what may be proposed with respect to current practitioners the legislature would likely insist upon the customary Grandfather's Clause which would reduce the significance of the title "Registered Professional Engineer" and undo the work accomplished by the Board of Registration over the past nine years.
5. that the present permissive law is no impediment to the achievement of a desirable uniformity among state registration laws since it is the *qualifications* for *registration* that are here significant and these can be the same whether the law is voluntary or compulsory.
6. that a mandatory law would be more difficult to administer, more likely to provoke controversies, and more susceptible to political interference.

Law Felt Adequate

ANOTHER factor that undoubtedly influenced the voting was the unanimous opinion of the four members of the Board who had served continuously since 1941 that the permissive law was adequately serving the need for engineering registration in Massachusetts and that the proposed change to a compulsory form was both unnecessary and undesirable. Mindful of the long and faithful, though unrewarded, service rendered by their representatives on the Board, and of the intimate opportunity these men had had not only to observe the law in operation but also to evaluate its effectiveness, many engineers marked their ballots against the mandatory proposal as a vote of confidence in the members of the Board of Engineering Registration.

In any event, the issue of mandatory versus permissive engineering registration has been decided in Massachusetts in true democratic fashion on the basis of full and free discussion, statewide referendum, and acceptance of the will of the majority. This clears the docket of a much mooted question upon which Massachusetts engineers differ strongly in their opinions and opens the door for consideration of other matters of mutual concern that are important to the enhancement of engineering as a profession and upon which there is much greater common agreement as to ways and means.

Atomic Commission Rules Out Competitive Bids

New Policy Statement of Importance to Engineers

"ARCHITECT-ENGINEER contracts will in all cases be negotiated . . ." That is the important ruling of the Atomic Energy Commission in their new guide for contracting of construction and engineering services for atomic development handled by the Commission.

In addition to the policy statement regarding architect-engineer contracts the new guide is important for those who desire to perform work for the Commission in the expanded atomic energy program. Architect-engineer contracts will generally be on a lump-sum basis but may be on a cost-plus-a-fixed-fee basis when complete information cannot be furnished, the Commission states. Normally construction work will be performed on a fixed-price basis after formal advertising but under certain conditions will be of the negotiated cost-plus-a-fixed-fee type.

Expanding on the elimination of advertising for architect-engineer services, the Commission states, "because formal advertising is not employed in executing contracts for the construction of certain work nor for obtaining architect-engineer services and may not be used for certain construction sub-contracts under a prime operating contractor or general construction contractor, it is necessary that contractors, architects, and engineers desiring to be considered for these types of work advise the managers of operations, attention of the indicated division directors, of their interest.

Information Needed

THE communication should contain the following information:

1. History and background of firm.
2. Brief description of education and experience of key personnel.
3. The number of qualified key personnel available for assignment to any given project.
4. Volume and type of work in previous years and the extent of present commitments.
5. Past record in performing work for the Commission or other Government agencies.
6. A financial statement, if available.
7. Size of job geared to handle.
8. Minimum dollar value will consider.

THE Commission policy in selection of architect-engineers states that the objective is to give consideration to as many firms within practical limits as may offer possible qualifications for performance of the work. The analysis of requirements will consider such factors as the nature of the work, the magnitude of the job, the time of performance, and conditions under which the work is to be performed, such as location, local labor conditions and relations with other contracts.

Three Categories

Prior to actual negotiation of a contract with a particular firm there will be developed in written form the extent of the services to be performed. Three general categories are set forth as follows:

(1) provide the necessary topographical and other field surveys, test borings, and other subsurface investigations, prepare preliminary studies, sketches and lay-out plans and reports including estimates of cost of the proposed project and of all structures, utilities, and appurtenances;

(2) Complete design of the work including preparation of all required preliminary and final working drawings, specifications, estimates, and contract documents; assist in securing, analyzing, and evaluating bids or proposals for construction, check shop drawings, and consult with the owner on all questions arising in connection with the services performed by the architect-engineer;

(3) Complete architect-engineer supervision and inspection of construction under the direction of a responsible representative. Furnishing of record drawings to show construction as actually accomplished. (b) A statement is made showing whether the services of the architect-engineer will include the furnishing of a non-reimbursable representative who shall be in responsible charge of the work. (c) A statement is developed showing whether the services of the architect-engineer include process design. Process design normally requires the preparation of flow diagrams showing each operating step to perform the process, the nature, capacity, and design characteristics of production equipment, and the general design of connecting flow lines to handle the calculated rates of product and by-product flow. Under ordinary circumstances the architect-engineer is not required to furnish process design.

OTHER valuable information is contained in the new guide and the publication will be indispensable to those desiring to perform work for the AEC in the engineering or construction field. Copies may be obtained from the Superintendent of Documents, Government Printing Office, Washington 25, D. C., at ten cents per copy.

NSPE Joint State Pres. & State Secs. Conference—March 9, 10 and 11, Nashville, Tennessee.

Connecticut Society—March, Bridgeport, annual meeting.

Ohio Society—March 16, 17 and 18, Dayton, Biltmore Hotel, annual meeting.

New Mexico Society — March 31 and April 1, Albuquerque, annual meeting.

New Jersey Society — April 14 and 15, Essex House, Newark, annual convention.

New York State Society — May 4, 5 and 6, Statler Hotel, New York City, Mid-Century Convention and Engineering Industries Exposition.

Pennsylvania Society—May 19 and 20, New Castle, annual meeting.

District of Columbia Society—May 22, Washington, D. C., annual meeting.

How Does A Chapter President Feel As He Steps Down?

RUT OF WORKING

By
Vincent F. Waters,

Past President, Georgia Society of Professional Engineers, Atlanta Chapter

(Editor's Note: This was the Annual report of the President at the 1949 Annual Meeting of the Georgia Society of Professional Engineers, Atlanta Chapter, Biltmore Hotel, Atlanta, Georgia.)

I STAND as your presiding officer today for the last time. Presently, I shall deliver the responsibilities to your able president-elect. Frankly, in some ways I will do so with a sigh of relief; but in other ways, I feel reluctant, because I am just beginning to learn something about my job.

I believe that the operations of the Atlanta Chapter for 1949 can be placed in the category labeled "Satisfactory." The Board of Directors have met on a monthly schedule. It is a pleasure to state that during the year, members who were not directors attended the directors' meetings in goodly numbers. Such interest by, shall we say, private members, is a healthy sign for the Society. Committee Chairmen and committee members were always well represented at the Board meetings.

Monthly general meetings were held, either as luncheon meetings or evening meetings. The Program Committee, under the chairmanship of Prof. C. B. Foos, developed worthwhile programs. We believe that the programs warranted excellent attendance, but I am sorry to report that the members failed their Chapter in this respect. We can only say here that the members who did not hear Harrison Jones were the losers. Those who heard Dr. Lowance of the Fulton County Medical Society gained a higher respect for their own professional status. One meeting had an attendance of about two hundred. The Summer Outing at North Fulton Park was well attended with estimates of 350 to 450, including the members' wives. We hope every member will come to realize very soon that regular attendance at the Chapter meetings brings benefits to each; although as a member, each has a duty to attend meetings.

WE might associate attendance at meetings with advertising. Letting other men know you as an individual is advertising, and the more people you let know about you, you individually, the better the advertising. Companies spend vast sums of money annually to advertise the company name or the principal product of the company by Brand Name. Coca-Cola is an excellent example of Brand Name advertising. Engineers are prone to bury themselves in the rut of "working" at their drafting board or desk—perhaps this lack of letting people know you as a high-grade individual is the reason that Harrison Jones, before the Atlanta Chapter, said with sharp emphasis, "I hire engineers." He was pointing up the fact that as a man in business, he attends all kinds of meetings and he is well known through his personal activities and probably was chosen for his job because of being well known, rather than being a superman of business. He said that engineers must associate with others in broader and broader circles in order to have the individual and the profession gain in recognition. This is all advertising of character.

About Working

A little story here might interest you, because I think it is apparent that the man in question was buried in the rut of "working." "When Gustavus III of Sweden was in Paris, a deputation of French scientists called on him. It congratulated him on the happy fortune, that had given him so great a man as Scheele, the discoverer of magnesium, as his subject and fellow countryman.

"The king, who took small interest in the progress of science, felt somewhat ashamed that he should be so ignorant as never even to have heard of the renowned chemist.

"He dispatched a courier at once to Sweden with the laconic order: 'Scheele is to be immediately raised to the dignity of a count.' 'His Majesty must be obeyed,' said the Prime Minister, 'but who in the hell is Scheele?'

"A secretary was told to make inquiries. He came back with very full information. 'Scheele is a good sort of fellow,' said he, 'a lieutenant in the artillery, a capital shot, and a first-rate hand at billiards.'

"The next day the lieutenant became a count, and the illustrious scientist was completely forgotten by the King and court."

Emblem Discussed

CONTINUING along the line of advertising, the National Society of Professional Engineers has developed a professional emblem for automobiles. This is a mighty small piece of metal to fasten on to a big machine like an automobile; however, if each of the 23,000 members of NSPE placed one on his car, it would prove a weighty means of advancing Professional Engineering in the minds of the public.

Certificates of the National Society of Professional Engineers have been presented to nearly 400 members of the Atlanta Chapter. If every member had his certificate framed and hung it in his working quarters or reception room where others may see it, we would have another powerful force of advertising working for the development of the profession of engineering.

Years ago as a design engineer, as a research engineer, and as a plant engineer, I used to discuss the status of the engineers in industry with other engineers, but never did I hear of the

(Continued on page 20)

PROFESSIONALS RECLASSIFIED . . .

Proposed revisions in wage-hour regulations that were made public by Administrator William R. McComb recently will make some important changes in the classification of professional employees if put into effect in their present form. The minimum salary for administrative and professional employees would be raised from $200 a month to $75 a week, and men who can be classified as professionals must perform work requiring advanced knowledge in a field of science or learning or must perform creative work in an artistic field. To continue in this professional class their non-professional work must be limited to 20 per cent of the hours they work each week.

Heretofore the regulations did not clearly define what was to be considered professional work, and as a result there was a tendency to put as many men as possible into that classification because payment of a premium for overtime was not required. Some employers probably capitalized on the desire of many young engineers to be included in the professional class.

The higher salary bracket for professional employees and the more exact and restrictive definition of what work by men in that higher bracket can be classified as professional will tend to reduce the number of engineering employees in the professional class in the future. This change appears to have both favorable and unfavorable aspects.

The closer restrictions on the professional classifications seem desirable. Certainly it will facilitate the work of those who seek to make the possession of a license to practice engineering one of the prerequisites to classification as a professional.

On the other hand it will postpone the day when the young engineers who seek professional status can be moved over into that group. In large organizations where the bulk of the employees are unionized it may mean that more of these men will have to put in some time as members of a union having policies with which they are not in agreement. Even that may not be without its favorable aspects. Some have suggested that it would be a valuable experience for every young engineer to start out in a union.

Because of these considerations the effect of the new regulations will be watched with interest even outside the areas directly affected by the federal wage-hour law. — *Engineering News-Record, October* 13, 1949.

CAN ENGINEERS BE SYNCHRONIZED? . . .

Can engineers be synchronized? Can they be persuaded to pull together, to cooperate, to pool their talents and resources in an orderly, organized effort to attain common objectives outside their several fields of specialized technology? In spite of appearances and experience to the contrary, many of us believe they can be so persuaded, and because we believe, we persist in our endeavor to find the right formula and to supply the requisite leadership. Those of us who participated in the discussions held at Section, District, and general meetings of the Institute some three years ago were tremendously encouraged by the interest and response of our own Institute members and by their evident willingness to relinquish some of the Institute's autonomy for the sake of forming an over-all organization of the engineering profession.

It seems to me there are two types of organizational tools available and ready for use. I shall refer to them in the same order in which they were discussed in our subcommittee's report. I refer to our old friends, plans *B* and *C*.

PLAN *B*

Plan *B* called for the continuance of the present national engineering societies, such as the Institute, as autonomous organizations to cover their respective fields of engineering technology and for a separate, individual membership organization to take care of the nontechnological problems of the profession. There is an organization of this latter type, the National Society of Professional Engineers. Each of the component units of that organization, the local chapter, the state society, and the national society, is responsible for the activities in its own geographical sphere. Each is responsible to the individual member who has a direct voice in electing its officers and developing its policies.

The state society is not primarily a federation of local chapters but rather an organization of all the individual members of all the separate chapters in a state and is designed to handle state-wide problems beyond the scope of an individual chapter. Similarly, the national society is not only a federation of state societies but an organization of individual engineers designed to serve the profession on national problems which transcend state boundaries.

PLAN *C*

Plan *C* is based on the local engineering or technical societies council, of which an increasing number have been organized in recent years. A local council usually consists of representatives of the local units (chapters, sections, and so forth) of the several national engineering societies, to which may be added representatives of local engineering clubs and scientific or technical societies, either local or national in scope. A local council is not an organization of individual members but, as its name implies, a council of representatives from a number of completely autonomous societies. Its authority is limited to that specifically conferred upon it by the participating organizations. The individual members of the organizations represented on the council have no direct voice in its affairs. Its activities are necessarily local in scope, except as it may effect a working arrangement with other local councils in a state or region.

Ultimately these local councils may be grouped into state or regional councils and the state or regional councils into a national council. A national council, known as Engineers Joint Council, and consisting of representatives of five of the major national engineering societies including the Institute, has been functioning for several years and would logically be the nucleus around which plan *C* could develop.

These two tools are intended to serve the same purpose. They are relatively new tools and we are inex-

perienced in their use. Both can be improved. One may prove to be better for our purpose than the other. But each of us should use one or both of them now to the best of his ability rather than debate about their relative merits.

PLAN *D*

The essence of the over-all organization as proposed by the Institute's subcommittee in plan *D* is that it shall be of the individual membership type with the continuation of affiliated individual membership societies for specialized technical purposes only, the latter being the present national engineering societies which will continue to function in their respective technical fields and will have a voice in proportion to their membership in the affairs of the overall organization. The individual members of the over-all organization may or may not be members of one or more of the affiliated technical societies and presumably an individual may be a member of one or more of the technical societies without being a member of the over-all organization. Members of the over-all organization will be members of the local and regional units of the over-all organization.

It is worthy of note that plan *D* combines the principal elements of plans *B* and*C*. Depending on one's point of view, plan *D* may be said to be either plan *B* or plan *C* with certain more or less desirable additions. On the questionnaire used by our committee at Section, District, and general meetings where the several plans were discussed, the most frequent comment was to the effect that plans *B* and *C* were only intermediate steps toward plan *D*. Some members favored plan *B* as an intermediate step, some favored plan *C*. A few suggested taking both steps in parallel to hasten the day when plan *D* might be made effective. Some were satisfied that plan *B* was all that was necessary, others were equally sure that plan *C* was the right answer but the larger number favored plan *D* as the ultimate solution to the problem of professional organization.

—*Electrical Engineering.*

UNIONS AND PROFESSIONAL PUPPETS . . .

"The trouble with you engineers is that you fancy yourselves as professional men. Actually you are just hired help." In this way, Mathew Wohl of the A. F. of L. spoke the unions' view of engineers. This is the oldest formula for subjugation known. Convince a man he is no better than the rest, and his work will be no better than the worst.

Destroy man's faith in himself and supplant it with a belief in numbers. The mass is right. Supplant promotion on ability for promotion on seniority. Trade starting salaries based on potential ability for a starting union scale.

An engineer, this includes all technological persons, lives on the fruits of his mind and is fully dependent on it. The mind must be free from regulation to probe and sift. A person's hands can be readily controlled, but the mind is more elusive; but have no fear, it can be controlled; and ambition, the mind's motor, can rust with the rain of mediocrity.

A fascinating account of the battle of ability against mediocrity of an individual's talent against the united common average is contained in *The Fountain Head* by Ayn Rand published by Bobbs Merrill. Read it to see how an Engineer faces the challenge of the many.

An engineer does not need a union to plead his case to the employer. An engineer can point to his achievements and can say, "I have done this," "I have done that." He is distinguishable from any other engineer. He can show how he deserves better wages than another engineer, regardless of tenure. The working man needs a labor union to plead his case because there an individual is not distinguishable for his efforts from another.

Engineers are hired brains, not hired help. The amount of creative ideas in a man's mind cannot be constrained, averaged, and sold as a package by a union. The number of bricks a pair of hands can buy, can and is constrained, averaged, and sold as a package by a union. It's called a brick layer.

An engineer should rise on his own merits and not as a consequence of someone else's labors. If he is ambitious, hardworking, and if he has an agile, fertile mind, he can bypass others who are complacent and inert.

An engineer is an individualist supreme. If his plans are successful the credit is his. If his plans fail, the blame is his. This system eliminates incompetence remarkably fast. But incompetence seeks a comeback behind "the grievance committee." It is an intermediate between your boss and you; they give the boss the picture as a whole, satisfying the wants as a whole, but not your personal grievances; only you can do this. The grievance committee tells an employer whether he can or cannot fire an employe for incompetence. The employes' money buys his services, yet once he's hired, he can't be fired for incompetence.

Who then is clamoring for unionization of engineers, besides the unions themselves? It is the mediocre engineer, the one who cannot get ahead by his own merit and worth. It is the engineer whose mind is already burdened down by altruism and self-sacrifice for others. In doing this he is not raising the laggers up to his level, but he is lowering himself down to their level.

The independent engineer can use a more powerful bargaining agent than any union. His bargaining agent is his own ability and past record. It is as good or as bad as he makes it.

If the mediocre engineers organize without the better than average engineer in their ranks they will get nowhere. The choice is up to you. Will you bet on *yourself* or a union bargaining agent? — *The Minnesota Technolog, December,* 1949.

WHERE ENGINEERS WORK . . .

More than one-third of the State Society's members are employed by 14 agencies and organizations. The State Highway Department is the largest employer of Missouri Society of Professional Engineers members, with 191 engineers in that organization. Kansas City Power and Light Company is second having 46 members, and the largest number of MSPE members of any private employer. Third place is the Corps of Engineers, U. S. Army, with 26 members. Burns and McDonnell consulting firm, and the Empire District Electric Company, each employ 17 MSPE members. In fifth place are the Black and Veatch consulting firm, and Union Electric Company, with 16 MSPE member-engineers each.

The following list shows the next nine larger employers, with the number employed by each. Although several firms have three and four engineers who are members of the Society, only those having five or more are included here. These are:

6.	Washington University	14
7.	City of Kansas City, Mo.	12
	City of St. Louis, Mo.	12
8.	Butler Manufacturing Co.	11
9.	Missouri School of Mines	10
	City of Springfield, Mo.	10
	St. Louis & San Francisco R.R. Co.	10
10.	Westinghouse Elec. Corp.	9
11.	Mo. Power & Light Co.	8
	Missouri Div. of Health	8
	Nooter Corporation	8
12.	Monsanto Chemical Co.	7
13.	St. Joseph Light & Power Co.	6
	Horner and Shifrin	6
	Jones-Hettelsater Const. Co.	6

(*Continued on page* 33)

LEGISLATIVE REPORT

The concluding session of the 81st Congress is now well underway and all indications thus far are that it will be a session of large talk and little action. The overriding fact is that 1950 is an election year and this is the time and the place to make political hay. The administration will press for national and international programs in line with the "Fair Deal" policy of President Truman and the administration opponents will resist most of the program with one eye on the voters of next Fall.

The first few weeks of the session have indicated the probable turn of events. The House of Representatives has been meeting sporadically with no legislative program to consider. The Senate started off with the debate on repeal of the oleomargarine taxes and spent the better part of the first three weeks on that hardy perennial. The administration's civil rights program is scheduled for early consideration and that will take several weeks or more in the Senate.

For the engineering profession there appears to be nothing new on the legislative horizon, but there are a number of items left pending from the previous session. A move will be made in the House of Representatives to force the National Science Foundation bill out of the Rules Committee. The bill has already passed the Senate and would be expected to receive a large majority vote in the House if it is brought to a decision. The discharge move appears to have a good chance of success unless the action of the Rules Committee to rescind the present discharge rule and renew their previous power over legislation prevails. The Senate Committee has commenced hearings on the House-passed Social Security bill. The hearings may last for five or six weeks, however, indicating that final action on social security will come late in the session, if at all. The House Foreign Affairs Committee has reopened hearings on the Point Four legislation to provide technical assistance to the underdeveloped nations of the world. This comprehensive program also will be slow in developing.

Meanwhile, primary interests has been concentrated on the President's various messages to Congress containing his recommendations in the economic and general legislative fields. A large part of the President's recommendations have a direct connection with engineering in one phase or another. Some of the more pertinent observations and recommendations of interest to engineers are along the following lines.

Commenting on the Point Four proposal in his State of the Union Message, the President said, "An expanding world economy requires the improvement of living standards and the development of resources in areas where human poverty and misery now prevail. Without such improvement, the recovery of Europe and the future of our own economy will not be secure." Senator Robert A. Taft, (R., Ohio), has assailed the President's recommendation on Point Four, pointing out that the cost of the program seems "almost beyond calculation." The Ohio Senator contends that "if the President is going to make all of these scientific and economic advances available . . . in this generation it will take billions and billions of dollars to do it."

The President has plugged hard again for approval of the St. Lawrence Seaway and power project, and again recommended the establishment of the Columbia Valley Administration. All in all, a look at the Truman recommendations in the various messages suggests the expanding field of engineering interest in national and international areas.

Rut of Working

(*Continued from page* 16)

word "profession" used in our discussions. Although the National Society of Professional Engineers was established in 1934 by a hard-working group of engineers, I did not hear much about engineering as a profession until the early 1940's while serving as assistant secretary of a technical society. I think the National Society of Professional Engineers should be credited with an outstanding accomplishment in bringing to the fore the status of engineering as a profession in government and civil affairs, and credit should be given to the late United States Supreme Court Justice, Louis D. Brandeis, who, in 1912 before the students of Brown University, said,

"Engineering in its many branches already takes rank beside Law, Medicine, and Theology. . . . The peculiar characteristics of a profession as distinguished from other occupations, I take to be these:

"First—A profession is an occupation for which the necessary preliminary training is intellectual in character, involving knowledge and to some extent learning, as distinguished from mere skill.

"Second—It is an occupation which is pursued largely for others and not merely for one's self.

"Third—It is an occupation in which the amount of financial return is not the accepted measure of success. They select as their test, excellence of performance in the broadest sense—and include, among other things, advance in the particular occupation and service to the community."

Real Success

THESE are the bases of all worthy reputations in the recognized professions. In them a large income is the ordinary incident of success; but he who exaggerates the value of the incident is apt to fail of real success.

Perhaps now I should turn to the book of wisdom — Sometime during the 17th Century, a wise man is credited with saying, "It is a great misfortune neither to have enough wit to talk well nor enough judgment to be silent."

Before I exercise enough judgment to be silent, I want to express my sincere thanks for the honor of serving you as president; I want to thank Past President Harry Robert for sage advice; and I want to tell you that your other officers, directors, and committeemen were diligent, hardworking representatives for the good of the National Society of Professional Engineers, the Georgia Society of Professional Engineers, your Chapter, and of all individual members.

I trust that every individual member will make a New Year's Resolution to read the aims and objectives of N.S.P.E., G.S.P.E., and The Chapter, and that the resolution will include a strong promise of loyalty to the Societies and the Chapter by attending general meetings, Board of Directors' meetings and participating actively in all affairs of the Societies.

A Member Views The Annual Meeting At Houston

By
F. W. Edwards,

Director, Dept. of Engineering, Illinois Institute of Technology, and Member, Illinois Society of Professional Engineers

THE growing importance of NSPE to the profession was indicated at the annual meeting in Houston, Texas. Items cited here represent only a few highlights. However in some measure they point the way to further development while signifying certain defects which must be corrected.

The quality and variety of the principal addresses and the personality and vigor of each speaker surpassed the offerings at the majority of engineering meetings. Consider for example the numerous talks presented on subjects which are not strictly engineering matters but nevertheless are vital to engineers. One on education by a college president, one on character by a bishop of the church, one on economics by a professor of economics, one on the utilization of natural resources by a president of a research institute, and one on human rights by a past president of the American Bar Association aroused the members to thoughtful consideration. It was reassuring to learn that these men, representing their respective professions, are presenting forcefully and scholarly sound principles of education, ethics, economics and law. This program is evidence of real progress toward developing a professional viewpoint. It emphasized the necessity for offering similar programs at the local level.

THE effective cooperation of NSPE with other engineering societies is encouraging also. The positive action taken and the results accomplished in connection with military affairs shows how the profession can be of service to every citizen. The promise of thorough study and discussion of organization for unity in the profession is important to all engineers. Also important are the working agreements between engineers and architects which have been developed in several local areas. These agreements are another indication of progress through leadership and cooperation.

The fact that the legislative committee is attempting to and has plans for getting ahead of the parade in influencing legislation on which engineers are especially qualified to advise should not be overlooked. "Too little, too late," is an apt expression for the profession's activities along this line in the fairly recent past.

ALL who attended the meeting, no doubt, realize the great amount of work done, and continuing to be done, by a few of the capable engineers in the country for the benefit of all members of the profession. It seems evident that greater numbers of well-qualified engineers are needed to continue this work. However the money value of time spent by the present workers alone represents a very sizable sum. If engineers in general realized the amount of service donated annually for betterment of all, the NSPE membership would grow rapidly. Unfortunately not all engineers recognize the amount or the significance of this work and for this reason the writer regrets that some specific proposal for financing the program recommended by the J. Walter Thompson report was not introduced. Avoidance of this problem contrasted sharply with the energetic pursuit of other important subjects.

A pleasant and worthwhile addition to the regular program was the presentation of Mr. Tyre C. Hughes who at ninety-one is the oldest practicing engineer in the country. His unique idea for adding engineers to the legislative branch of the government would be endorsed by many who support sound planning on engineering principles for government as well as for private enterprise.

TO THE *Editor* ...

Simmons' Article . . .

Dear Editor:

The article captioned "To Be Let Alone," by David A. Simmons, was one of exceptional interest. Mr. Simmons writes with convincing sincerity and without rancor.

He includes the question "And what is there that we can do about it?"

May I, through you, express to Mr. Simmons, whose address is not available to me, an endorsement of (a) his definition and distinction between *rights* and *aspirations*, and (b) his recommendation that the "aspirations" as outlined in Articles 22 and 27, should not be mixed in one document.

To characterize those elements as rights would, in my opinion, be most disastrous and confusing.

H. F. Brumm,
Hornell, N. Y.

Dear Editor:

I found the article by David A. Simmons in the January issue, one of the soundest I have read in a long time.

If available, I'd like copies to distribute in spots where I think they would do some good. . . .

Clarence T. Fishleigh,
Detroit, Mich.

Dear Editor:

. . . have just received copies of January issue. I am highly complimented by the magnificent treatment you gave my address.

David A. Simmons,
Houston, Texas.

Flowers For Living . . .

Dear Editor:

We (Ohio Society) like to be told how efficient we are. Here is a letter we've received with a "chuckle" tucked away in it.

"Your letter of 19th just returned to me from Tennessee.

"I admire your efficient organization which so quickly picked up as a change of address my wife's visit to her mother in Tennessee last month.

"This is to advise that I still live here in Columbus at the same old address. I should like to continue to receive the state and national publications at this address.

W. A. Fogg."

How's that for fast action? Seriously, we think NSPE should promote this type of thing. Recently we sent to other states the names of newly registered Engineers-in-Training and we are now planning to send the names of our recently registered out-of-state engineers.

Lloyd A. Chacey,
Executive Secretary.
Ohio, SPE,
Columbus, Ohio.

Still More On Glidden . . .

Dear Editor:

Was grieved indeed to read Joe Daley's comments in January issue regarding Glidden article (American Engineer, Oct., '49). He certainly reached the wadi of despondency—no doubt pondering over the fact so few people have ever been able to get out of this world alive. Or perhaps his wife had gone on a visit and he had not reached the high point of efficiency where he could put on his socks from either end.

Again he may be trying to comply with the demand of the Holy Writ—to lift up his voice like a trumpet.

Whatever the cause, he has my heart-felt sympathy, and my only hope is that when Mr. Daley reaches as near 80 years as I am, he will and can appreciate one of the greatest, grandest, most inspiring articles ever written: "An Engineer Gazes Into His Crystal Ball."

May we have plenty more from Glidden, Cooke, and others.

H. Sumner Bracken,
Johnstown, Pa.

Thanks . . .

Dear Editor:

Thank you very much for printing my "Letter To The Editor" (January, '50). I have already received several comments from the field concerning the specification of signaling, communication and protection equipment. . . .

R. S. Edwards,
Norwalk, Conn.

Social Security . . .

Dear Editor:

In the Legislative Bulletin of January 3rd, one paragraph is devoted to Social Security for self-employed engineers.

I have given this considerable thought and study with reference to self-employed engineers as well as engineers for State, County, Municipalities, Township and all local governments and it seems that some do and some do not have a retirement system of their own, but of all these systems none seems to be adequate and the returns therefrom might be said to be considerably less than even a coal miner or factory worker. I, therefore, wish to go on record as believing that in the long run the best interests of all public employees, from the state classification down to Township employees, or self-employed engineers would be served by having social security applied to them, for the reason that the payments thereunder are small and the only objection that I can see would be the ever mounting "Red-Tape" in connection therewith.

John R. Cloyd,
Rocky River, Ohio.

► ***The pending social security legislation provides for adding state and municipal employees to the federal system on a voluntary basis by local or state groups. Those presently under a retirement system would be protected by the requirement that two-thirds of such groups vote for inclusion in the federal system.—Editor.***

New Senator . . .

Dear Editor:

Just a word about the new U. S. Senator from Kansas, Harry Darby.

It is gratifying, indeed, to know that at last another engineer has "made the grade." What a pity it is that more engineers don't take an active interest in politics. Some of our best minds are lost to the nation because of our inertia. More power to Darby.

John Bloom.
Wall, S. Dakota.

Around The Nation With Our Members

East Texas Chapter Takes Up County Unit Road Plan

The recent report by Harry Phillips on the County Unit Road Plan in the *Texas Professional Engineer* brought out a lively discussion of the subject by the East Texas Chapter at a recent meeting.

In going on record for devising means to effectively and appropriately sponsor, encourage or promote the plan, the Chapter cited examples of the operation of the unit plan in several counties. Outstanding features of the functioning of the plan seemed to be resistance and obstruction by the county commissioners to its operation and an extremely narrow and somewhat indefinite understanding of the proper demarcation of the authority duly exercisable by the commissioners and/or the county engineer under this plan.

Some members felt that the dismal results achieved by most counties in the expenditure of their road and bridge funds, together with the constant parade of delegations be fore the State Highway Commission with pleas for aid on local roads, would lead to a complete transfer of all road responsibilities from counties to the State Highway Department. The discussion was ended by passing a motion to appoint a committee to investigate and study ways and means whereby the East Texas Chapter can effectively and actively support the County Unit Plan.

A committee was also appointed to survey the membership of the Chapter with a view to developing a story on a worthy member for the "Civic Engineers" column of the ENGINEER.

Essay Contest for Young Engineers

Again this year Engineering Societies of New England is sponsoring a contest for the younger members of our society. The object of the contest is to stimulate thought among young members of the constituent societies with regard to their professional status and responsibilities and to provide recognition for meritorious achievement by young engineers. The plan of the contest is as follows:

Operation—The contest is to be operated under the direction of the Essay Committee of ESNE.

Eligibility—All individual members of ESNE who will not have reached their 30th birthday by March 15, 1950, are eligible to compete.

Awards—Cash prizes totalling $100 will be awarded to the winning contestants: first prize $50, second prize $30, third prize $20.

Topic — The topic for this year's contest shall be on the general subject of the Engineering Profession and the following title has been suggested as being suitable: "The Young Engineer Looks at His Profession."

Rules—Each competing essay must be original, not exceeding 2500 words in length and typewritten double spaced upon 8½" x 11" sheets. The essay itself must not contain the name of the author, but shall be mailed to ESNE headquarters in a sealed envelope accompanied by a letter of transmittal signed by the author. Each essay will then be marked in code before being transmitted to the judges. All essays must be received at the ESNE office by March 1, 1950, in order to be considered. The Secretary of ESNE will code all essays and transmit them, without indication as to the authors, to the judges of the contest.

Judging — A Committee of three judges, from among outstanding engineers in the area, will be designated by the President of ESNE, with the advice and consent of the Essay Committee, to determine the winning essays and their decision shall be final.

Santa Fe Chapter Meetings

Recently this group met at La Posada dining room for a dinner meeting. Mr. M. C. Heffelman, vice president and Santa Fe Division Manager of the Public Service Co. of New Mexico was the guest speaker. Mr. Heffelman described the new 6000 kilowatt power station built in Santa Fe by the Stearns-Rogers Co. of Denver for his company. He gave the design requirements, construction costs, procurement and installation, efficiencies, effects on the system, and concluded by extending a special invitation to the chapter for an inspection trip.

During the course of the business meeting which followed this talk, Mr. W. S. Bates, chairman of the Committee on a Proposed Grid System, gave a report together with considerable correspondence between the Department of Commerce, U. S. Coast and Geodetic Survey and Mr. Thornburg, City Engineer. Committee was requested to continue their work to ascertain costs and local support on the use and value of a City Grid.

Another meeting included pictures and a brief talk by Mr. Luther Bell, of the Portland Cement Association. Discussion was wide and varied on such items as a new laydown vibrator for placing concrete to some of the features of pre-stressed concrete. Practically every member present added his comment and further group meetings continued for hours after the meeting was formally adjourned.

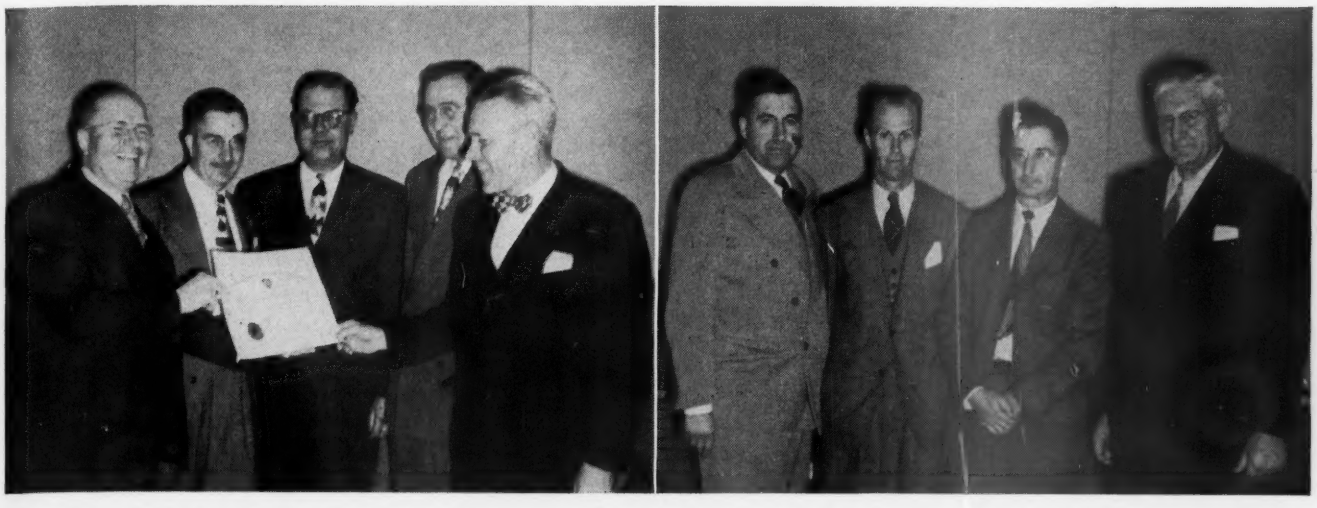
Californians Hear Steel Engineer

The January meeting of the Bay Area Chapter, California SPE, was held Wednesday, January 18, in San Francisco.

The speaker of the evening was Mr. Harry Corlett, Engineer of the American Institute of Steel Construction, who showed a motion picture on steel fabrication and conducted a "question and answer" period.

That President Douglass Judd has given the Chapter a fine start in 1950 was apparent to all who attend the forthcoming meeting. To acquaint those unable to attend a meeting with "current events," a Meeting Reporter will be appointed to bring the absentees up to date from a member's viewpoint.

North Dakota Receives Charter . . .



Charles A. Doell presents the National Chapter to the State Society. Reading left to right, Charles A. Doell, representing the National Society of Professional Engineers; George Teskey, Secretary-Treasurer; John B. Jardine, National Director; Leslie French, former State President; Harry S. Dixon, present State President. And on the left are the newly elected officers, reading left to right: K. Piper, Secretary-Treasurer; John Oakey, Vice President; George Teskey, National Director; E. L. Lium, State President.

Charter Presentation Highlight of Annual Meeting

The highlight of the Annual Meeting held recently by the North Dakota Society of Professional Engineers was the presentation of its Charter as a member of the National Society. (See cuts.)

Charles A. Doell, representing NSPE, presented the Charter while Professor Henry S. Dixon, the State President, responded.

The Annual Meeting opened with a welcome to the city of Bismarck by Mayor A. P. Lenhart. On the following day, Nels G. Johnson, former Attorney General of the State of North Dakota, delivered an address entitled, "The Legal Aspects of Engineering."

"Life is constantly becoming more complex," Johnson said. "The state statutes are replete with references to the engineering sciences. The training and experience of engineers must be of such a nature that they can cope with this complexity both in scientific aspects as well as legal implications."

At the annual banquet, Bruce Johnson, Director for the Bureau of Reclamation's Missouri-Souris District, addressed the group. "No group is better qualified to form objective opinions as to what should be done for the best interests of future development in this state than the North Dakota SPE," Johnson observed.

Honored guests at the evening banquet were Colonel J. S. Seybold, Garrison District; Mayor A. P. Lenhart of Bismarck; John Hjelle, Editor of the *Bismarck Tribune;* and the father, mother and brother of Bruce Johnson.

The new officers elected were E. L. Lium, Grand Forks, President; John Oakey, Fargo, Vice President; and K. Piper, Bismarck, Secretary-Treasurer.

The meeting closed with a conducted tour of the huge Garrison Dam Project with a banquet at the workers' mess hall.

News of Wisconsin Chapters

SOUTHEAST: held its quarterly meeting recently at the Avalon Hotel, Waukesha. Mr. H. P. Kreulen of Waukesha, Vice President of Grede Foundries, Inc., a colorful and leading representative of the foundry industry spoke to 37 members and guests on "America." Having just completed an extensive European trip, he indicated very pertinently our many advantages that will require renewed interest and attention if they are to be perpetuated. We had the pleasure of having state President Moore and State Secretary Muegge at the meeting. Officers elected for 1950 were: Frank I. Vilen, Kenosha, President; Arthur P. Kuranz, Waukesha, Vice Pres.; Walter E. Dick, Waukesha, reelected Secretary Treasurer and Herbert E. Johnson, Elkhorn, Director 1950-51. Past President Carl A. Altenbern, Burlington and Director Thomas T. Hay, Racine.

WESTERN: held its annual meeting, recently at the Stoddard Hotel, La Crosse, starting with dinner at 6:30 p.m. followed by the meeting. The business meeting consisted of the election of officers and the reports from various committee chairmen or their representatives.

SOUTHWEST: held its annual meeting at the Capital Hotel, Madison. The speaker of the evening was Mr. Geo. Sievers, Chairman of the State Ethics and Practice committee, who has done an outstanding job, who gave an account of his work complete with case histories. The chapter also held at the request of the new WSPE committee on the Surveyor's License Law, a discussion on the proposed Surveyor's License. This was led by Mr. Willard Warzyn, the Chapter's representative on this committee.

New York Honors Three Engineers

Every month the New York SPE introduces members of its organization through the pages of its magazine, who have not only distinguished themselves in their particular line of endeavor but who have also accelerated the development of engineering as a profession. Honored recently were Dr. John C. Riedel, Robert D. Martin, and Gustav H. Karlsteen.

Topping a long and distinguished career, John Charles Riedel has served as Chief Engineer of New York City's Board of Estimate since 1939. He is also a member of the City Planning Commission and is Chairman of the Traffic Commission of the City of New York.

(*Continued on Next Page*)

Pa. Chapter Holds Gala Xmas Party . . .

An example of combining good public relations with an excellent charitable cause, was the recent Christmas Party given for orphaned children by the Delaware County Chapter of the Pennsylvania SPE. Twenty-two children, from Friendly Acres Home, Secane, Pa., attended the affair which was complete with gifts, carols and Santa Claus. On the left, Santa (Herbert Russell) is being assisted by Mrs. Ernest O. Lange, center, wife of Professor Lange, president of the Chapter, and Mrs. Russell, wife of Santa Claus. Voices get a work-out (right). Carol singing by the children was ably assisted by baritone Herbert Henderson, center background, Chapter Vice President. Later the group enjoyed movies and dinner.

(*Continued from page* 23)

He received his formal education at the College of the City of New York, New York Nautical School, and Cooper Union, taking his B.S. from the latter in 1898. He received his C.E. in 1904.

He is a member of the Kings County Chapter and has been president of the New York State Society of Professional Engineers and the National Society of Professional Engineers.

Robert D. Martin graduated from Stevens Institute of Technology in 1925 with degree of Mechanical Engineer.

Joined the New York Edison Company as cadet engineer. In 1927 became associated with the New York Steam Corporation as inspecting engineer and after a period spent in learning the elements of outside plant construction transferred to the Sales Department of the Company. Presently Manager of Sales, Assistant Vice President and Director of the New York Steam Corporation, since 1929 one of the system companies of the Consolidated Edison Company of New York, Inc.

He is a member of the New York County Chapter of the New York State Society of Professional Engineers.

Gustav H. Karlsteen, American engineer, was born in Sweden in 1886, graduated from the University of Stockholm in 1906, and was awarded a traveling scholarship to Germany and France.

He came to America in 1906 and gained distinction for the direction of heavy construction on mercantile and industrial buildings in the Chicago and Duluth areas. Later, in World War I, he supervised superstructures at the Government Powder Plant.

Since 1920 he has been identified with original construction of the Dunlop Tire and Rubber Corp. plant at Tonawanda, N. Y., continuing as Plant Engineer in charge of mechanical and power equipment, plant maintenance, and plant extensions and construction.

He has been active in the New York State Society of Professional Engineers as Chairman of the Membership Committee, and as President of the Erie Chapter. He is currently serving as Chairman of the N.Y.S.S.P.E. Nominating Committee.

Kuhlmann To Teach In South America

Professor J. H. Kuhlmann, member of the Minnesota Association of Professional Engineers, and professor of electrical engineering, University of Minnesota, has been invited by the Institute de Electrotecnica, Sao Paulo, Brazil, to spend a year teaching at that institution.

His work will include instructing graduate students, teachers, and interested practicing engineers, in the design and construction of electrical machinery.

Professor Kuhlmann is author of a well-known technical book, "Design of Electrical Apparatus," published by John Wiley & Sons, New York.

Ill. Engineers Fly To Meetings

The University of Illinois is very modern. When it had to send its instructors to the refresher courses for the Professional Engineer's Examinations at Rockford and Granite City recently, it transported them in its airplanes from its own airport to the nearest airport of the refresher course. Springfield and Decatur were served by automobile travel.

In this way the instructors were able to teach at the University of Illinois until 3 P.M., go to the refresher course and there spend 3 hours in class and be back at Urbana by midnight.

Oklahoma A. & M. Announces Requirements For Faculty Members

What qualifications should be required for an Engineering professor to gain full membership of the Graduate Faculty?

The Graduate School of the Oklahoma A. and M. College has recently had committee action to answer that question. At a reorganization meeting of the Graduate School, the committee voted that, "Faculty members, to be eligible for full standing on the Graduate Faculty, must have a doctor's degree from a recognized graduate school or have the highest degree offered in their field. Faculty members with the master's degree who are Registered Professional Engineers, Registered Architects, or Certified Public Accountants shall be considered as meeting this requirement."

There are other requirements for admission to the graduate faculty. In addition to the foregoing, rank of associate professor, research experience, and an established reputation for teaching standards are required, but the Professional Engineers on the Graduate Faculty are particularly pleased with the recognition given to Registered Professional Engineers.

Dr. Bush Made Honorary Life Member of A.I.E.E.

Dr. Vannevar Bush, president of the Carnegie Institution of Washington and noted atomic scientist, was made an honorary life member of the American Institute of Electrical Engineers when the organization met in New York, January 30-February 3.

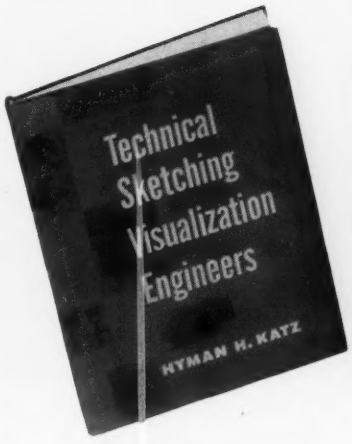
James F. Fairman, president of the Institute, will confer the honorary membership upon Dr. Bush who received the Edison Medal from the Institute in 1943.

Minnesota Chapter Attains 100% Goal

The Ninth District Society of the Minnesota Association of Professional Engineers now has a membership of 40—100% of the registered engineers in the District, reports A. O. Nelson, 1949 President of the Chapter.

The newly elected Chapter President is C. J. Hastad, who is also mayor-elect of his home town.

Guides to Advancement



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By H. H. KATZ

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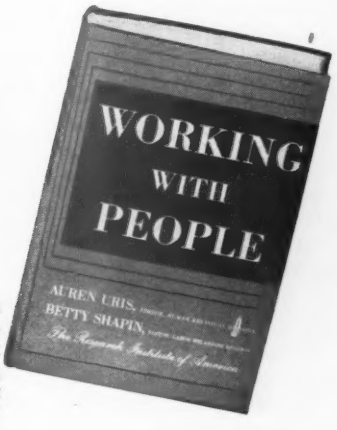
Working with People



Can you use a bigger salary? This book gives you one of the most important keys to success in business or industry—the ability to get the best work out of people, yourself and others. In specific, how-to-do-it-and-say-it terms, with examples, it shows how to correct poor work "without tears," how to get real assistance from your assistant, overcome resistance to change, train a new worker effectively, settle grievances without grief, deal successfully with aches, pains and emotions and with the many other human problems constantly arising in any plant or office. These well-tested methods for keeping the workers you supervise satisfied and productive, for getting cooperation from your fellow workers and trust from your superiors can bring you top rewards.

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Jefferson-Lewis Chapter Hears Steinman

The Jefferson-Lewis Chapter of the NYSSPE, held a meeting recently in Watertown, N. Y. (See left cut) Dr. D. B. Steinman, First President of NSPE, and a past president of NYSSPE, was speaker of the evening.

Shown in the photo, back row, l. to r., are H. R. Dwyer, Treasurer; R. E. Brett, V. Pres.; H. J. Besha, Secretary. Front row: Wm. T. Field, Director; Dr. Steinman, and W. E. Roubie, President.

Junior Membership Awards Made

The Ohio Society of Professional Engineers gives Junior Membership Awards in OSPE and NSPE to those receiving the two highest grades in the Engineer-in-Training exam from each of the 9 approved colleges of engineering in Ohio. Since 7 candidates from Case, 2 from Cincinnati, and one each from Akron and Toledo made 100 percent on the July exam, there were 23 awards made as follows:

Akron Chapter—F. A. Greico (University of Akron), P. Keller, Jr. (Case).

Canton Chapter—C. G. Laiblin (University of Akron).

Central Ohio Chapter—Sidney H. Davis (Ohio State University).

Cincinnati Chapter—E. J. Bonem (University of Cincinnati), C. W. Arujo (University of Cincinnati), and Harry G. Fabe (Ohio University).

Cleveland—D. R. Butler (Case), D. C. Garber (Case), R. G. Gebhart (Case), R. L. Soslaw (Case), C. R. Owen (Case), John J. Brincka (Fenn), and John Russell (Fenn).

Franklin County Chapter—D. H. Williams (Ohio State University).

Dayton Chapter—H. F. Gaeke (University of Dayton).

Lake Erie Chapter—D. A. Berlincourt (Case), John G. Frye (Ohio Northern University).

Lorain County Chapter—John Urban (Ohio University).

Maumee Chapter—Paul T. Sutton (Ohio State University).

Springfield Chapter—R. C. Greiner (University of Dayton).

Toledo Chapter—R. E. Fletcher (University of Toledo), A. E. Seed (University of Toledo).

Another Spokane Member Appointed By Governor

Jas. G. McGivern, Spokane Chapter, was honored recently with appointment by the Governor as a Member of the State Board of Registration for Professional Engineers and Land Surveyors. He will fill the expired term of E. B. Crane. He is Dean of Engineering at the Gonzaga University, Spokane. It should be gratifying to all engineers to know that this is the second time this year our Governor has appointed a member of this society to said Board.

Philly Chapter Hear Talk On Subway

Mr. R. Harland Horton, an outstanding authority on Transportation Engineering, was the guest speaker of the Philadelphia Chapter, PSPE, recently. His subject was "Northeast Extension of the Broad Street Subway." He exhibited the Report to the City—the result of one year's study of 30 engineers and technicians.

Instead of reading he exhibited and commented on some very illuminating slides and gave the conclusion and their recommendation, showing comparisons of three plans, taking into account the underground structures, the number of people served, time saved, and the estimated cost.

Ohio Chapter Guests of Bendix

The members of the Lorain County Chapter of the Ohio Society of Professional Engineers were dinner guests of the Bendix-Westinghouse Automotive Air Brake Company at its plant in Elyria, Ohio, recently.

Shown above (see right cut) are: Ellery Fitch, Dir. of Engineering, Bendix-Westinghouse; J. S. Kennedy. Former Director, NSPE; C. A. Baugh, Pres. of Lorain County Chapter; and D. E. Starkey, Sec'y. of the Chapter.

A short business session was conducted by Clifford A. Baugh, Chapter President, D. E. Starkey, Secretary, and Peter Galanka, Editor.

Ellery R. Fitch, Director of Engineering of Bendix-Westinghouse, welcomed the group in a brief address. Stephen Johnson, Jr., Chief Engineer, talked to the sixty-eight members of the Chapter on past and present developments in automotive air brake equipment.

Company Senior Engineers, which group includes seven Professional Registered Engineers, conducted the guests on an inspection trip of the plant which terminated in the Engineering Division.

New Olympia Chapter Meets

At the first meeting of the Olympia Chapter, Washington SPE, held recently, H. W. Pollock of the State Dept. of Conservation and Development, was the main speaker. His talk covered the organization and functions of the Department.

Also presented was a talk by John O. Johnson, Chairman, Public Relations Committee, Seattle Chapter, WSPE. Johnson told members of the new chapter of the importance of professionalism for all engineers.

Engineers Advise On Bond Issue Expenditures

At the request of Gov. Roy J. Turner, Engr. Morrison B. Cunningham, President of the Oklahoma Society of Professional Engineers, appointed a Central Advisory Committee, consisting of Engrs. C. S. Worley, Chairman, William Ritzhaupt, Harry M. House, John M. Dunning and Jack L. Marshall, to make an inspection of the various state institutions.

This committee was furnished with estimated breakdown of remodeling and new construction requirements by the State Board of Affairs. Other engineers in regions adjacent to the various institutions were called in to assist. The committee then suggested various revisions of the estimates before they were to be submitted to the State Legislature.

The Oklahoma Society of Professional Engineers feels highly honored to have been selected for this work and their diligent activity in the matter portrays an ardent desire to do their part in any activities pertaining to the public and civic welfare of the state.

Below is a list of registered engineers who gave liberally of their time to this work.

State Penitentiary—McAlester
Harry M. House, Oklahoma City
Rex Collins, McAlester
Clarence B. Wood, McAlester

State Reformatory—Granite
Wm. Schumacher, Lawton
John W. Riley, Altus
Wyatt B. Hendrick, Lawton

Training School for White Boys —Stringtown
Harry M. House, Oklahoma City
Ralph W. Delaney, Ada
George G. Toler, Ada

Training School for Negro Boys—Boley
John M. Dunning, Oklahoma City
Harry M. House, Oklahoma City

Girl's Town—Tecumseh
Jack Fox, Tecumseh
C. S. Worley, Oklahoma City

Consolidated Negro Institutions—Taft
T. P. Clonts, Muskogee
John R. Curry, Muskogee
Wm. Ritzhaupt, Edmond
Jack L. Marshall, Oklahoma City
Jack Fox, Tecumseh

Whitaker State Orphan's Home—Pryor
George J. Stein, Miami
H. G. Freehauf, Miami
Allan Craig, Tulsa
L. L. Dresser, Tulsa

School for the Blind—Muskogee
T. P. Clonts, Muskogee
John R. Curry, Muskogee
Wm. Ritzhaupt, Edmond
Jack L. Marshall, Oklahoma City
Jack Fox, Tecumseh

School for the Deaf—Sulphur
George G. Toler, Ada
Ralph W. Delaney, Ada
Jack Fox, Tecumseh
John M. Dunning, Oklahoma City
J. A. Chapman, Sulphur

Eastern T. B. Sanitorium—Talihina
C. B. Wood, McAlester
Rex Collins, McAlester
L. L. Dresser, Tulsa

Western T. B. Sanitorium—Clinton
Western State Hospital—Clinton
Wm. Ritzhaupt, Edmond
Jack L. Marshall, Oklahoma City

Central State Hospital—Norman
Harry M. House, Oklahoma City
Jack L. Marshall, Oklahoma City
Wm. Ritzhaupt, Edmond
C. S. Worley, Oklahoma City
Jack Fox, Tecumseh
Joe M. Smay, Norman

Eastern State Hospital—Vinita
George J. Stein, Miami
H. G. Freehauf, Miami
Allan Craig, Tulsa

Enid State School—Enid
Wm. Ritzhaupt, Edmond
F. W. Denner, Enid

Pauls Valley State Hospital—Pauls Valley
John M. Dunning, Oklahoma City
Col. F. J. Wilson, Ardmore
Jack Fox, Tecumseh
C. B. Wood, McAlester

Western State Hospital—Supply
Clyde Wallen, Shattuck
R. D. Alexander, Oklahoma City
H. H. Edwards, Cherokee

Ladies' Night In Panhandle

The annual Ladies' Night was held in connection with the December meeting of the Panhandle Chapter, TSPE. Taking the form of a dinner dance at the Amarillo Country Club, the meeting was attended by 35 members, their wives and guests.

The program included some sleight-of-hand tricks by Johnnie Sissom, followed by vocal selections by Virgil Mott of Pampa. New officers introduced are Charles W. Smith, president; Max O. Nuttall, vice-president; J. L. Adams, secretary-treasurer; Donald Rose and Hollis W. Harris, directors.

MAPE Engineers Honored

Col. E. B. Miller, chairman of the MAPE Military Affairs Committee, has been appointed by Governor Youngdahl and the Adjutant General to represent Minnesota at a conference on Civil Defense called by Louis Johnson, Secretary of Defense, in Washington. One representative from each state will attend.

Dr. Lorenz G. Straub, head of the University Civil Engineering Depart-

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ment, and director of its St. Anthony Falls Hydraulic Laboratory, has been re-elected president of the International Association for Hydraulic Structure Research. The election was held at the association's meeting in Grenoble, France. Dr. Straub has been awarded the Officier d'Academie "in recognition of service rendered to French culture." He has served as U. S. delegate to the French Society of Engineers and carried on cooperative activity with French engineers.

Maryland Society Hear Noted Criminologist

James Merritt Hepbron, Managing Director of the Criminal Justice Commission of Baltimore, spoke at the January Dinner Meeting of the Maryland Society of Professional Engineers.

Mr. Hepbron is also Managing Director of the Community Chest of Baltimore. He was born in Chestertown, Md. and received his Bachelor of Law Degree at the University of Maryland, Doctor of Law at Washington College, Doctor of Science at Temple University and Doctor of Human Letters, Maryland College.

Mr. Hepbron is a noted criminologist and talked on "*Sidelights on the Administration of Justice.*"

Stolte Speaks At Michigan Meet

NSPE President-elect S. L. Stolte was a guest speaker at the Annual Meeting of the Michigan SPE, held the latter part of January.

Arizona Membership Record Noted

"We are proud of our membership record," L. N. White, National Director for the Arkansas SPE, said recently.

"In the first place it is a fact that the Arkansas Society occupies a good position in the National Society. Among the 34 State Societies, Arkansas stands third in the percentage of eligible registered engineers (52%) holding membership in the State Society. We stand fifth in the nation in the percentage increase of members during the past year," White said.

Deadlines For Filing New York State P.E. Applications

All P.E. applications must be filed on or before *March* 1 for those who seek admission to the May examinations in New York State, and on or before *September* 1 for the November examinations. These deadline dates have been found necessary in order that the State Education Department and the State Board of Examiners may be able to process the applications in time for the examinations.

The March 1 and September 1 closing dates for applications will be strictly enforced by the Department except where a serious emergency justifies a waiver. Earlier filing of applications is recommended and requested, in order to relieve the State Board from being swamped by the last-minute flood of applications.

New Course At Georgia Tech

The first graduate course in port, harbor and shore engineering to be given in the South is now offered at the Georgia Institute of Technology, according to an announcement by Dr. Ray L. Sweigert, Dean of the Graduate Division, and member NSPE. Only three other institutions in the United States, Cornell University, M.I.T. and University of Michigan, offer a similar course.

The course is taught by George F. Sowers, associate professor of civil engineering, who worked with his father, Colonel G. B. Sowers of Cleveland, Ohio, in the design of protective works for the south shore of Lake Erie. In addition, he has carried out model studies of wave action.

Tenn. U. Gets New Engineering Building

Dedication of the University of Tennessee's new $994,000 Engineering Building will be held in Knoxville at 10 A. M. on March 6, Dean N. W. Dougherty of the University's College of Engineering, announced recently.

Replacing a building destroyed by fire in 1942, the new building will be named "Perkins Hall" in honor of the late Dr. Charles A. Perkins, a University faculty member for 49 years. It will be the University's third engineering building.

Bosch Joins World Health Group

Herbert M. Bosch, member of the Minnesota APE, NSPE, has been appointed Chief, Section of Environmental Sanitation, for the World Health Organization, Geneva, Switzerland.

His work will involve direction of programs of world-wide scope, aiming at complete international control of the major pandemic diseases, particularly cholera, plague and epidemic typhus, and the encouragement of sanitary measures of all types for promoting general health and well-being.

Marion Chapter Hears Kilbourn

The Marion Chapter, Ohio SPE, held its first meeting of the new year in Marion recently.

The speaker of the evening was one of the Chapter members, Engineer G. Rex Kilbourn, who discussed "Fire —Man's Best Friend." He outlined the development and the use of fire for power, the use of heat energy by the human body, and the restoration by photo-synthesis of all elements used by fire.

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Engineer Appointed Land Commissioner

W. W. Lane, Consulting Engineer of Phoenix, Arizona, has been appointed as State Land Commissioner by Governor Garvey. Governor Garvey's action in appointing an Engineer to this very responsible office is commendable as the position calls for one with engineering abilities.

Nine Past Presidents Of OSPE Live In Franklin County

The Franklin County Chapter, Ohio SPE, is proud of the fact that there are residing in the county 9 past presidents of the Ohio society.

In the days of the Ohio Engineering Society, predecessor of OSPE, Professor Clyde T. Morris of O.S.U. was the president. This was in 1916. Morris is now retired.

In 1922 Robert N. Ward was elected president of the society. Engineer Ward was Director of Public Works during the administration of Myers Y. Cooper. He was on the faculty of O.S.U. at one time. He is secretary of the Board of Registration for Prof. Engrs. and Surveyors. Ward has served as legislative chairman for OSPE in years past and has done good work on many a committee.

During the days when the Ohio Engineering Society was working hardest to get the Registration Act passed, Hal E. Sours, County Engineer at Akron, Ohio, was elected President. This was in 1930. He was later director of the State Dept. of Highways, 1940-45. Sours was president of the American Road Builders Association in 1941 and 1942. During the 1947 season of the legislature he was chairman of our OSPE Legislative Committee.

In 1933, the year that the Registration Act passed the legislature, Fred Swineford was at the helm of the State Society. Swineford was director of Public Service at Akron, 1928-1931. He was chief engineer of the Maintenance Bureau in 1927 and of the Construction Bureau 1945-1946 in the Dept. of Highways. At the present time he is engineer director for Macadam Pavements, Inc., of Ohio.

In 1936 another ex-County Engineer became president of what is now the Ohio Society of Professional Engineers. Perry T. Ford was destined to go on to be Ohio's first president of the National Society of Professional Engineers. Perry was Director of Highways under the first Lausche Administration. He was on the Board of Registration for a time and then served as their executive secretary. He is now President of the Universal Road Planer Corp.

A Franklin County resident repeated in 1938 as president of OSPE. It was J. R. Burkey, then Chief Engineer of the Bridge Bureau in the Dept. of Highways. J. R., as he is affectionately known, is now affiliated with the Union Metal Co. at Canton, Ohio.

Again in 1938 Franklin County furnished the Ohio Society with a president. He was E. G. Cantwell, who also was from the Dept. of Highways where he served in many capacities including purchasing agent. He left the department and went in the business of selling Heavy Construction Equipment. He later organized the Cantwell Machinery Company of which he is now president.

In 1940 another College Professor from Ohio State, Harry E. Hold, became President of the Ohio Society. He was the second OSPE President to go on to the leadership of NSPE, where he served as President for the two years, 1944-1945.

It was 8 years before the Ohio Society called upon a Franklin County Chapter member for a president. Again he came from the Bridge Bureau of the Dept. of Highways. John T. Heier has served as president of the Franklin County Chapter and on many committees of the State Society. He is Chief Railroad Crossing Engineer and still serves on the executive committee of the Ohio Society as past president.

Johnson Appointed To Registration Board

Robert C. Johnson was appointed by the Industrial Commission to the Wisconsin Registration Board of Architects and Professional Engineers, to fill the vacancy left by the resignation of James L. Ferebee.

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Agreement Reached On Fees Schedule

After a long series of conferences beginning in June, 1949, an agreement has been reached with PHA officials on an optional schedule of fees to be paid architects, including structural engineers, under the low-rent housing program authorized by the Housing Act of 1949. The agreement was reached at a meeting in New York which was attended by representatives of the A.I.A., PHA, and the National Association of Housing Officials who had joined with the A.I.A. in requesting a reconsideration of the schedule of fees, 216.2, promulgated by PHA in October, 1949.

PHA and the A.I.A. have continually agreed that a fee based on 2.5 times technical payroll is fair and equitable for housing projects. The new basis of compensation will allow the architectural profession to establish what the technical payrolls are. After a year or more experience with this new contract, a review of costs will probably be made to determine whether further adjustments up or down are needed.

The new method has been approved by Commissioner John T. Egan for formal authorization by the PHA as of December 21.

This new basis of compensation, while generally 2.5 times payroll costs, would provide for a contract which establishes a fee to include three component factors:

1. A fixed amount equal to forty percent of the maximum fee schedule contained in the above-identified PHA schedule.
2. An amount for "timecard costs" (technical payroll), which would be reimbursed to the architect on the presentation of timecard costs to and approval by the local housing authority.
3. An amount for overhead equal to fifty percent of "timecard costs."

March 15 Survey Deadline

March 15, 1950, has been announced as the closing date for the nationwide survey of selected engineering personnel now being sponsored by the Engineers Joint Council for the U. S. Office of Naval Research. To date over 60 percent of the 115,000 questionnaires sent to full members of 18 national engineering societies have been answered. After processing by The American Society of Mechanical Engineers, contracting agent under an ONR agreement, the questionnaires will be kept in Washington as a source file of the nation's key engineers and scientists.

A national asset, the body of facts gathered by the survey will be available to Government agencies, private industrial, educational and professional society planning groups, and for other legitimate purposes.

Those who have not yet answered the questionnaire are urged to do so before the March 15 deadline so that they may be listed among engineering resources of the nation. An interesting fact disclosed by the EJC is that although the first mailing of the questionnaire was to 97,000 senior engineers, these men gave the names of 18,400 other upper echelon engineers and recommended that they also be polled.

The survey was initiated as the result of a conference held in Washington late in 1948 attended by EJC representatives and those of other engineering agencies, including NSPE, at which the need was discussed for a list of key engineers working in research, development and other scientific projects, who could be called in on a full or part time basis to work on the broad scientific programs of the National Military Establishment.

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Pennsylvania Chapters Active In A Variety Of Fields

MIDWESTERN CHAPTER

The Midwestern Chapter is to be the hosts for the Convention of the State Society in New Castle, May 19-20, 1950, and they are hard at work planning a very worthwhile convention.

PHILADELPHIA CHAPTER

"Government Medicine—should the United States have socialized medicine?" was the topic discussed at a recent meeting. The guest speaker was Dr. Howard K. Petry, Supt. of the State Hospital at Harrisburg, Pa.

He called the "growing philosophy of statism" a symptom of disease which is cancerous. It is intrusion into private homes. It began in Germany in 1882 under Bismarck. Statistics show that the countries which have adopted it do not compare favorably with the United States altho the overall cost is much greater.

READING CHAPTER

The 3rd Annual Ladies' Night was held recently at the Bowers Country Club with 60 members, wives and guests present.

Dr. R. K. Reeder was the guest speaker, with the subject "Hypnosis as an Aid to Dentistry." Dr. Reeder told how hypnosis was used during the war as an aid in surgery and dentistry and of his use of it since the war in his dental practice. Using his young daughter Susie as a subject, the doctor gave practical demonstrations which were highly instructive.

Rolland Simpson was chairman for the affair.

LEHIGH VALLEY CHAPTER

Recently the Lehigh Valley Chapter met in the Hotel Bethlehem and after an enjoyable dinner heard a splendid talk on "Engineer-Architect Relations" by Leslie S. Tarleton of Philadelphia. The speaker is Chairman of the Engineer-Architect Committee of PSPE and his selection proved to be a wise choice. There was considerable discussion from the floor and when the meeting was over everyone present had a better understanding of the lines of demarcation between the two professions.

VALLEY FORGE CHAPTER

The Valley Forge Chapter had a good turn-out and a splendid meal at their recent meeting at "Whispering Pines" near Lansdale. State Society President Clarence T. Shoch gave an inspiring talk on "The Bi-Focal Stage" stressing the need for a broad outlook as well as a clear vision on the daily tasks of the engineering profession.

State Society Secretary John T. West, Jr., gave an informative talk entitled "Why Belong?" in which he outlined the aims and accomplishments of the Society.

PITTSBURGH CHAPTER AFFILIATES

A recent meeting of the Pittsburgh Chapter Affiliates was held in the Y.M.C.A. in downtown Pittsburgh with 45 present. The meeting was conducted by the Affiliates and they demonstrated their ability by conducting an orderly and instructive meeting. Tentative plans were made to hold 3 separate meetings of the Affiliate group and to have them in charge of one Chapter meeting during the year. Affiliates are also invited to all Chapter meetings.

Short talks outlining objectives and procedures were made by Chapter President D. C. Peters, Chapter Secretary M. C. Knabe, Membership Chairman M. Fertig, Engineer-in-Training Chairman Paul Sahm, Professor R. C. Gorham of University of Pittsburgh and John T. West, Jr., Executive Secretary of P.S.P.E.

A great deal of interest was shown and these young men will be a credit to the profession.

DELAWARE COUNTY CHAPTER

At a meeting held in Hotel Club House at Chester a panel discussion was held with members giving short talks on the Profession from the standpoint of the Consultant, Contractor, Sales Engineer and Engineer in Industry. Questions of professional ethics involved in each branch were discussed and at the end everyone had a better idea of the other fellow's job and its place in the profession.

President Lange took down the discussion on a wire recorder and used it as a part of his program in teaching Professional Ethics at Drexel Institute the next day.

BEAVER COUNTY CHAPTER

At a meeting held in the Penn-Beaver Hotel in Rochester, Pa., it was decided to organize a new Chapter in this territory which had heretofore been considered a part of the Pittsburgh Chapter area. The Pittsburgh Chapter are in back of the plan and had agreed to release from their Chapter membership all those who wished to join the new Chapter. Temporary officers were elected as follows: Rowland A. Nadeau, President; James W. Baker, Secretary and George Van Maldeghem, State Director. Twenty-four persons were present at the initial meeting.

HARRISBURG CHAPTER

Two recent speakers before this Chapter were: Otto D. Lorenzi, Educational Director with Combustion Engineering - Superheating Corporation, who spoke on "A Study of Stoker Fuel Beds," and Harry Sternfield, Architect of Philadelphia, who spoke on "Better Understanding Between Architects and Engineers."

Civilian Defense

(*Continued from page 7*)

Any city can have a sensible, workable civil defense program such as we've seen exists in Fort Wayne, Indiana, and elsewhere. In the light of recent developments, we can be assured that CD need no longer be an "also ran" in any community.

"THE engineer," says Lt. Col. B. W. Beers, civil defense head for the Department of Defense, "has more interesting problems to solve in the civilian defense field than anyone else. From fire fighting to city planning, engineers of all branches of the profession are needed—and now. There is a job for everyone, all can fit into the picture."

The program on the national and local level is moving along fast. Only last month CD representatives from 25 states gathered in Washington to discuss Operation Lookout, an aircraft observer system. These people are devoting their time and energy in order to formulate an adequate system of warning for all parts of America. This work, as does all worthwhile civic activity, calls for men of intelligence and vision. Engineers, with their amazing record of usefulness during times of stress, will be derelict in their duty to their country and to their profession if they do not take an aggressive part in civil defense preparations now. The day for letting George do it is over and gone.

As We Go To Press . . .

Paul J. Larsen, a former atomic research official, was named to head a newly created government agency charged with planning for war-time civil defense. Larsen will be the first chairman of the Civilian Mobilization Office, and will assume the duties handled in the past by William A. Gill's Mobilization Procedures and Organization department of the National Security Resources Board.

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	Ralston Purina Co.	5

This partial distribution of MSPE members by employers is based upon information obtained from the Membership Directory, and includes those members who are listed in the supplementary directory pages published in the August issue of this magazine. If there are any employers who employ five or more members of the Society, this information is solicited and will be published.

Although there are agencies and organizations, both public and private in this State, whose engineering staffs are substantially larger than some of the aforementioned organizations, they are not represented in these brackets of the Society's membership. Professional engineers in these organizations might not have been invited to become members. Qualifications for membership in the Missouri Society of Professional Engineers are: (1) Graduation in an approved course of at least 4 academic years in engineering from an engineering school or college satisfactory to the Board of Directors, and a specific record of an additional 4 years or more of active practice, indicating competency for responsible charge of such work; or (2) A specific record of 8 years or more of engineering work indicating competency for responsible charge of such work; or (3) Registration as a professional engineer under the laws of the State of Missouri; or (4) Membership in good standing in the National Society of Professional Engineers.—*The Missouri Engineer.*

THE ARMY ENGINEERS . . .

World War II stressed with increasing emphasis that the joining link between a nation's natural and industrial resources and that nation's military establishment is largely the successful execution of properly planned logistics. Each succeeding campaign, in all theaters of operation, was measured, in the final analysis, by the Army Engineers' ability to marshal our national work-power and place this combination of natural and industrial resources at the disposal of the military command.

In light of this lesson, a prominent general early referred to the conflict as an "Engineers' war." This of course, was a far reaching statement.

Historically, it was the inability to meet the year-around demands of logistics that forced the armies of other days into winter quarters and limited large-scale operations to favorable weather. As one of our top military engineers once pointed out, Washington's remarkable winter victory at Trenton was in large part a triumph of his handful of engineers over logistical difficulties.

Reflecting this sound military policy, the Corps of Engineers is maintained today at the ratio it attained during World War II—as the second largest branch of the United States Army.

Current strength of the Corps of Engineers is 60,000 officers and enlisted men. This is approximately 9 per cent of our Army personnel and is exceeded only by the Infantry.

To meet the day's necessity for balanced forces with appropriate ratios of services, the number of Engineers required, as compared with the total Army strength, is about three times that of pre-war years.

The mission of the Army Engineers was assigned on June 16, 1775—the day before the Battle of Bunker Hill. On that day, General Washington was authorized by Congress to appoint "one Chief Engineer and two assistants." The newly born Army Engineers immediately threw up the breastwork that protected the American troops until they could "see the whites of the enemies' eyes," then pitched in as a fighting unit in the battle that followed. Since that day, 174 years ago—and through six major wars, the Corps of Engineers has wisely been maintained as both a combat arm and a service branch of the United States Army. Its mission has been, simply, "keep the Army moving."

Today, keeping the Army moving means war plants, posts, camps, stations, airfields, utilities, pipe lines, storage facilities, roads, docks, bridges, and other essential construction in this country and wherever over the world our Army needs them. It means men who have made the bulldozer an indispensable weapon of war. And to maintain a corps of such men means something more than mere numbers. It means training and experience: men who have learned largely by doing, and who are not given the opportunity to permit their knowledge and experience to become rusty from disuse.

This factor was also known to General Washington, who established the unique and wise policy of having Army Engineers assigned in peacetime to civil works, as well as to military endeavors. The policy has been maintained. The Corps of Engineers today still serves the Congress of the United States as its engineering branch, responsible for the nation's rivers and harbors and for flood control.

"In the successful conduct of its military and civil missions, the Corps of Engineers maintains a working relationship with civilian engineering and construction firms which keeps before them our military engineering problems and contributes immeasurably to the rapid and successful mobilization of the entire construction industry in times of a national emergency. This continuing service is a vital contribution to our National Defense.

"Certainly, in peace and in war, our country has had no more effective servant of the people than the distinguished Corps of Engineers."

LEWIS A. PICK
Major General, United States Army
Chief of Engineers
—The Military Engineer

Benline, NYSSPE, Becomes Naval Captain

The promotion to the rank of Captain, Civil Engineer Corps, United States Naval Reserve, of Arthur J. Benline of New York City was announced by the Secretary of the Navy. Capt. Benline is Superintendent of the Department of Housing & Buildings, Manhattan, City of New York, and an active member of the NYSSPE.

The promotion was based on Capt. Benline's citation for performance of duty in the Okinawa campaign, in actual combat under enemy fire. In that assault landing he was Commander of Landing Craft & Pontoons, and directed the lighterage and landing operations. He was awarded the Bronze Star and Purple Heart medals at the time in addition to the special commendation of the Commander Amphibious Forces, U. S. Pacific Fleet. With his 70th Seabee Battalion, he had previously served in the North African and Mediterranean Campaigns.

Upon his return to civilian duties, Capt. Benline became the first Commanding Officer of the Bronx Volunteer Civil Engineer-Seabee Unit 3-45 and was instrumental in developing the Naval Reserve training program of the Civil Engineer Corps in this area.

New York Adds Three New Chapters

During the closing months of 1949 the New York State Society organized three new chapters covering the majority of the 412 Registered Professional Engineers in the state, residing outside of existing chapter boundaries.

These three new chapters included Jefferson-Lewis, centering on Watertown and, in an adjacent area, the new St. Lawrence-Franklin Chapter, covering the key upstate cities of Massena, Potsdam and Ogdensburg. The third new chapter serves the engineers in Ulster County and centers on the thriving Hudson River city of Kingston.

The New York roster of chapters now numbers twenty-six. The State Society's Extension Committee, under the Chairmanship of William W. Perry, P.E. (State President 1948-49), has in prospect the formation of three additional new chapters, in 1950, which will give the State Society a 100% coverage with active chapters in every county of the Empire State.

To date, the formation of the three new chapters has added almost 100 new members to the State Society's rolls.

College Adds Course Stressing Professionalism

Three hundred and eighty-nine students, 54 of them women, enrolled in the New York State College of Ceramics at Alfred (N. Y.) University for the first semester of the 1949-1950 academic year.

The college, which is celebrating its 50th anniversary this year, is offering a new course in "Engineering Indoctrination" to juniors in the department of ceramic engineering.

The course deals with the ethics, practices, and objectives of the engineering profession. It also will cover industrial safety and hygiene practices and some humanistic subjects which have a bearing on the professional and personal life of the engineer.

Ill. SPE Chapter Sponsors Refresher

The Capital Chapter, ISPE, is sponsoring a refresher course for those preparing to take the structural engineering examination. Arrangements were made with U. of Illinois to give the 16 week course.

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